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The Health Bulletin

Published by THE NORTH CAROLINA STATE BOARD OF HEALTH

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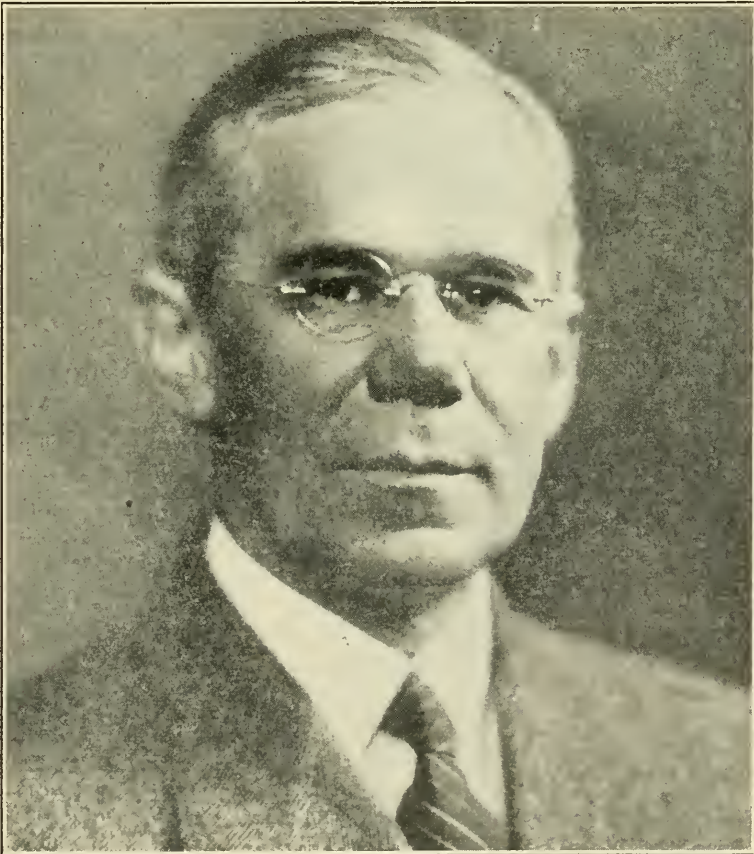
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Vol. 51

JANUARY, 1936

No. 1

GEORGE HUGHES KIRBY, M. D.



**DISTINGUISHED PSYCHIATRIST, NATIVE NORTH CAROLINIAN,
DIED AT PORTSMOUTH, NEW HAMPSHIRE, AUGUST 11, 1935**

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THE Health Bulletin

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Vol. 51

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Mental Health

By THE EDITOR

IN this our first issue of the New Year we are doing two unusual things. First, we are dedicating the issue to the memory of the late Dr. George H. Kirby, who perhaps scaled the scientific heights to a point never before reached by a physician born, reared and educated in North Carolina. Second, we are devoting the whole issue to a republication of an article written by Dr. Andrew H. Woods, who is now doing a great work in Iowa. Dr. Woods' article was first published in the Iowa State Department of Health Bulletin for June, 1935. Dr. Bierring, Iowa State Health Commissioner, and Dr. Woods grant us permission to republish. Our readers will find the information interesting and helpful.

Our friend Dr. James K. Hall of Richmond, himself a successful and widely known authority on mental diseases and beloved by his fellow North Carolinians, in a personal letter soon after Dr. Kirby's death, said: "I feel like urging you to republish in your Bulletin every word of Dr. Woods' pamphlet. The problems cannot be talked about too frankly. I believe that if you would send that material out widely throughout the State that you would shake the folks up. Why not make the issue a Mental Hygiene issue as a tribute to Dr. Kirby?"

Dr. Treadway of the U. S. P. H. Service told the Southern Medical Association at St. Louis a few weeks ago that "More people are hospitalized right at this moment in the United States on account of mental sickness than on account of any other single cause." And further that "We are dealing with mental sickness as a public health problem about as we did with physical disease eighty years ago."

We pass along the challenge to the only group who can accept it.

Dr. Hall wrote further about Dr. Kirby: "George Kirby was in my opinion one of the very best, if not the best, psychiatrist in this country. He was deeply and broadly educated; he was first and for a long time a profound student of the structure of the human body, and later became specifically interested in the function of the nervous system. I know of no other man who was better prepared in his latter years to practice psychiatry and to teach it. And with it all he remained the quiet, modest, self-effacing, Southern gentleman."

High praise indeed from a competent authority, but every word deserved. Dr. Kirby was born in Goldsboro, N. C., February 9, 1875, and died in Portsmouth, N. H., August 11, 1935. He was graduated from the University of North Carolina in 1896. He completed his medical education in New York and on graduation became associated with the celebrated Dr. Adolph Meyer at a New York State Hospital. He spent many years as Professor of Psychiatry at Cornell Medical School and the College of Physicians and Surgeons of Columbia University. He was president of the American Psychiatric Association and editor of its journal. Perhaps his greatest contribution was the planning and carrying through to a successful conclusion the New York State Psychiatric Institute as a unit of the joint Columbia-Presbyterian Medical Centre. He was the recipient of many honorary degrees, one from the University of North Carolina, conferred in 1929.

Successful Living

ANDREW H. WOODS, M.D., *Director*

Iowa State Psychopathic Hospital. In Iowa Public Health Bulletin

GENERAL HYGIENE AND MENTAL HYGIENE

HYGIENE is the general department of science which derives and applies methods of preventing disease and of enabling men to attain the maximum of health. Philosophers, religious leaders, and physicians throughout the ages have sought reliable procedures also for preventing mental disorders and attaining both health and efficiency in mental work, seeking thereby to bestow upon mankind the highest contentment and happiness. A recent movement, which has spread over the world under the name "mental hygiene," was started a quarter of a century ago and is now probably nearing the end of a period in which its useful contributions have been diluted by premature and inflated claims and pseudo-scientific literary productiveness. Physicians as a class have been somewhat diffident as to its value but are now beginning to look forward to its sound and fruitful development as a department of medical science.

The Objective of Mental Hygiene

Medical science has always been irrepressibly ambitious. Its chief effort has been to devise means to secure for mankind perfectly healthful, efficient working of the stomach, heart, and all the other bodily organs. It now turns its attention to the brain and seeks to discover means by which the working of the mind can be made perfectly healthful.

It is easy to write down the objective of hygiene of the digestive organs: to produce as nearly as possible perfect digestion, that is, successful nutrition; but the service which man's brain renders to him is not so simply defined. The brain is the organ which enables man to win in the continual conflict with his environment. Its real product is behavior. And so when we think through all the various statements that could be made as to the purpose of mental hygiene, we are finally forced to this utopian formulation: *the objective of mental hygiene is successful living.*

To define successful living is a stiff problem for the writer of definitions. When a man's mind has won riches for him, or when he has obtained perfect health of body, is he living successfully? Are the most intellectual the ones who live most successfully? Certainly many of us would not change places with some of those who have been outstanding in these various achievements. Merely because a man is happy and contented, shall we say he is successful? If so, we would have to include many cheerful imbeciles and demented among the great successes.

On the whole, we get our best suggestion as to a definition of successful living from biology. Every living thing from the solitary protoplasmic cells up to man is pressed by internal forces toward three general purposes: they continually do things to preserve their own lives, to grow, and develop each according to its inherent pattern; they then persistently reproduce their own kind and take care of the young until the offspring in turn have matured; and, as a third end, they cooperate with each other so that single cells group together and form higher organisms, and these higher organisms, like the ant, the bee, and flocks on the prairie, work together as swarms and herds; while, at the top of the series, man refuses to live alone and persistently associates himself with other men in doing work which proves advantageous for the individual and for the group. Thus society is formed, social and business organizations arise, nations are established.

This, therefore, is what the newest branch of medical science aims to accomplish: to produce that healthiness of mind which will enable a man to preserve his own life and develop his best powers of mind and body; to use his sexual functions for their obvious purpose, joyously, justly, and without becoming emotionally impeded by morbid repression; and to cooperate with his fellows productively and happily, while preserving a wholesome independence and individuality.

Outstanding service to his group can to some extent compensate for bad health or sterility, but unless an individual has lived up to a certain minimum level in response to all three of these instinctive requirements, he becomes dissatisfied and emotionally disordered. Nature sidetracks him through nervousness or insanity to get him out of the way of those who can live to better purpose.

* * * * *

The practical efforts of science to secure this healthy-mindedness for mankind are exhibited in:

1. Efforts to understand and then to prevent and cure insanity.

I. INSANITY

The mental hygiene movement began when men realized that insane persons can suffer even more keenly than those who are sane. The manner in which this gradually clarified truth broke into the consciousness of men and aroused the world to action is already known to most readers of magazine literature, so that only a brief reference to its history is needed here.

Every person in America theoretically has the right and responsibility to manage his own life, provided he shall not interfere with the corresponding right in other people. That proviso excepts criminals because they willfully encroach upon the rights of others; it also necessitates the limitation of the freedom of insane persons, because their minds fail to make the distinctions, and their feelings fail to provide the motives, necessary for acceptable behavior.

But the moment officers of the state take over responsibility for determining what clothes a citizen shall wear, what he shall eat, when he shall go and come, and what he shall do, trouble arises. If through carelessness, stupidity, or meanness, on the part of his keeper grave injustice is done to the person thus deprived of self-defense, the circumstances render it difficult for the state to gain knowledge of his predicament. So many of the sufferer's charges and complaints have been fabricated or delusional, that his testimony regarding a real injustice is dismissed with the explanation, "He is a criminal and can't be believed," or "The man is crazy."

Within the memory of some persons now living, insane patients were kept

2. A more hopeful attack upon the problems of mental defectiveness and undeveloped or perverse personality (including criminality).

3. Freeing men from the misunderstandings as to religion, moral standards, and social values, which hamper them emotionally and thereby produce the protean forms of "nervousness" (psychoneurosis).

4. Education as to marriage and the building of homes as the indispensable basis for the development in children of loyalty, industry, integrity, and all other ingredients of wholesome character. The attitudes which determine character are built up in children in early home life.

in dark dungeons, and at the whim of their keepers were chained to staples set in the walls. It was years after the American Declaration of Independence had announced the rights of individuals to self-direction that Philippe Pinel in Paris started a new era in the treatment of the insane. He alarmed the supposedly liberty-loving people of France by cutting the shackles of the insane in French dungeons and allowing them freedom to mingle with each other in the open air.

Charles Reade stirred the English people in 1856 by his exposure of prison conditions in, "It is never too late to mend"; and again in 1863 he turned his dramatic pen against the inhuman treatment accorded insane patients in asylums as he represented their plight in "Hard Cash."

To a world half awake to these abuses of arbitrary power and responsibility on the part of state and hospital officials and their employees the autobiography, "A Mind That Found Itself" came in 1908 with startling impact. A young college student suffering with a recurrent form of insanity graphically presented therein his reminiscent account of the treatment he had received in one of the best of American state hospitals. However much the readers may have discounted the alleged facts, in view of the mental condition of the patient, the book brought to Americans, and later to readers all over the world, a disquieting realization of the mental suffering caused in sensitive, often cultured, patients by the crude, though usually well meaning methods of hospital attendants.

This book, "A Mind That Found Itself," became a ferment and rapidly aroused physicians and citizens of all kinds to action. The development of general hygiene since the establishment of pathology and its special subdivision, bacteriology, in the middle of the 19th century, had aroused new hope in the hearts of men that bodily diseases could be cured, and, what is better, could be prevented, if dealt with promptly. Rabies, small-pox, tuberculosis, diphtheria, and a long list of diseases once regarded as inevitable and hopeless, had been brought under control. Statistics showed that some of them had almost disappeared in districts populated by intelligent people.

The brain also is an organ and its activities produce consciousness, feeling, perception, and thought. Derangements of the brain and the mind are, therefore, within the field of medical science. Many of the abnormalities of the brain which produce insanity are as well understood by physicians as are diseases of the heart, liver, and other organs. For instance, a bright high school boy of 16 years had always been considerate of others and was generally popular. He was brought to the Psychopathic Hospital truculent, excited and convinced that he was pursued by bandits. Examination showed that the left side of his brain was working badly. Questions revealed that he had suffered a blow on the head. Appropriate treatment was used to restore the nutrition of the damaged brain cells, and the boy quickly regained his wholesome personality.

A considerable part of the insanity that occurs is due to damage suffered by the brain cells from syphilis and alcohol. Anemia, malnutrition, and failure of the kidneys to rid the blood of certain nitrogenous poisons, cripple the brain and confuse mental action. Insanity also results from brain tumors and disease of the arteries.

Two of the most prevalent forms of insanity recur so frequently in certain families that one is forced to consider them inheritable.

The daily work in our state hospitals for the insane and in the Psychopathic Hospital consists in caring for the welfare and present happiness of the

patients and in systematic investigation to discover the nature and cause of the disease-process itself so as to devise means to remove it. Sometimes one or more of the endocrine glands are working badly. One woman who in 1930 seemed hopelessly insane has been kept in condition to care for her home through five years by the regular addition to her food of an extract made from a particular gland that is taken from sheep. In many cases syphilis or anemia is cured, and mental restoration follows.

It has been repeatedly discovered that in certain cases particular avoidable experiences are the precipitating causes of insanity. Many predisposed patients are saved from later attacks by the avoidance of one or another form of excitement or strain, by the curing of menstrual disorders, by preventing pregnancy, or by the regulation of sexual relations.

A considerable number of mental disorders are curable when certain misapprehensions of the patients are removed after being discovered by gradual personal investigation through memory association.

When the citizens of the state realize how much has been accomplished by these painstaking studies of the behavior, the thoughts, feelings and reasoning of mentally diseased patients, it will be made possible for our state officials to provide additional hospitals so as to relieve the present overcrowding and to increase their medical and nursing staffs in proportion to the relative value and importance of the mental functions—which are, after all, the basis of man's highest efficiency and of his contentment as an individual and as a member of society.

Occasionally when all efforts to cure the mental disease have failed, so that death occurred, and the family of the patient then requested that the nervous organs be examined, the cause of the disorder has been discovered and new light has thus been thrown upon the nature of the trouble. Those families who cooperate with physicians in this way are benefactors to humanity and become partners with the scientists of the world in the fight to overcome insanity.

II. PRACTICAL DEALING WITH MENTAL DEFECTIVENESS

Mental defectiveness shows itself in:

A. Inadequate intellect. Idiots, imbeciles, morons and "borderline defectives," are designations applied according to the degree of the intellectual inadequacy.

B. Constitutional inadequacy of character or personality ("psychopathic personality") often is found in persons with normal intelligence. When the basis of the character fault is inborn (constitutional) it cannot be corrected by training and discipline.

As a state we are faced by a continually increasing number of feeble-minded and psychopathic children who grow up to be a burden to society and a diluent to public opinion. Many of them become gangsters and criminals and impose a financial load upon the state considerably in excess of the total amount expended for education. If the money now being spent in this state for policing, detection, court procedures, and the imprisonment of derelicts of this class, had been spent in wise preventive and educational measures, we could look forward with some hope to a day when feeble-mindedness and criminality would become minor problems.

The oldest son in a certain large family has always been queer, awkward in movements, selfish, over-sensitive, and inept in social relations, although intellectually above the average of college graduates. The six other children of this family are bright, interested in others, gracious, and popular. The oldest boy's head was damaged in a prolonged birth; the other children, because of the mother's first experience, were born under especially expert obstetrical care.

Children, who at conception are produced from the best germ plasm, often have their brains damaged by disease or accident while within the mother's body, during birth, or in infancy before the brain-cells have matured. The "simple infectious diseases" of childhood produce encephalitis in many cases, which permanently cripples the brain. Prolonged labor and rough manipulations by midwives or unskilled attendants damage the brains of far too many infants. These unfortunate and often avoidable mishaps leave

various areas of the brain mal-developed. Most of these children show defects of intellect; while in some the intellects are excellent, but the feelings and motives (personality, character) are perverse.

Evidently the mind is dependent upon the working of the brain cells. Brains that are damaged before or during birth, or shortly thereafter, show varying degrees of intellectual defectiveness or character perversions, while the brains that have already developed good mentality may at any time in later life be injured by disease, drugs, or accident, with the result that intellect and personality are temporarily or permanently crippled.

Hereditary mental defect and insanity. Many children like those of the Kallikak* and the Juke† families are born with a continuous tendency generation after generation toward feeble-mindedness, criminality, and dependence upon others. When 20 per cent or more of the offspring of a given feeble-minded ancestor are idiots, imbeciles, and criminals, it becomes evident that the chromosomes in the germ plasm of that family are tainted. The building material of such brains is imperfect.

We cannot, however, assert that such conditions were inherited in particular cases except when the parents or other ancestors and collaterals have in sufficient numbers shown mental defect to make it clear that the fault lay in the germ plasm and not in the early environment of the children.

Prevention

1. *Sterilization.* When the public has sound reason for believing that offspring produced by any individual would lay an unjust burden upon his fellows either in supporting the offspring or in protecting others from danger due to their misbehavior, the state has the right to prevent that person from procreation. If the blemish is inheritable and if the potential parent cannot with reasonable certainty be prevented by other means from propagating his kind, enforced sterilization would be equitable.

In cases of non-inherited mental defectiveness or insanity, the unfortunate

* Goddard, H. H., "The Kallikak Family," MacMillan.

† "The Jukes," Dugdale, R. L., Putnam's Sons, 1877; reprinted, 1910.

person as a parent* is usually incompetent to supply the necessary conditions for rearing children. Such offspring, though born normal, have little chance of growing into desirable citizens. When the public feels reasonably sure in the case of any person that such unfortunate results would follow propagation, that segregation is not called for, and that contraceptive measures would not be effective, sterilization would be appropriate.

Coercive sterilization in a state will call for large expenditure of money to secure adequate examination of each person recommended for operation. Without such precautions, injustice will be done. It is also true that many citizens have conscientious convictions adverse to such operations. The whole eugenic movement will be more steadily furthered if education precedes radical legislation. * * *

2. *Segregation and training.* Idiots and imbeciles as a rule must be cared for by the state, and a sufficient number of asylums should be provided for this purpose. For these cases sterilization is not necessary. Morons and marginal mental defectives often are capable of useful work outside of institutions. If their behavior is orderly and cooperative, they should be sterilized and permitted to work outside, and to marry if they wish to do so. If they are not capable of such cooperation and are a menace to society, they must be cared for in state institutions.

There is need in this state for a larger number of institutions for the feeble-minded and psychopathic. The staffs of such institutions should be selected on the basis of expertness in developing whatever latent faculties the inmates possess. The victims of encephalitis, for instance, whose intellects are normal but who because of disease have lost self-control, call for a different kind of training from that which is applicable for morons. The state is now producing large numbers of juvenile delinquents many of whom are intellectually normal. These boys and girls if they had been placed in early childhood under capable foster parents or in state institutions, whose staff members are specially selected for qualities and experience which make them effectual in building up motives, could in many instances have been reared as useful members of society. Rigid prison discipline regularly arouses hostility in such children and

they grow up into adult life as criminals.

A defect in state and philanthropic institutions is illustrated by the case of a girl sent to the Psychopathic Hospital because of bad behavior and uncooperativeness. She was clever and agreeable, but made no effort to become proficient in self-supporting work. Her attitude was explained in her own statement, "Why should I worry? If I don't like it in one place, I just start something and they send me to another." Here we have the typical "charity school" spirit: restless, without ambition, usually critical and unappreciative, taking for granted that the world owes them a living.

When we remove from any person, especially during childhood, the wholesome spur provided by hunger and desire for shelter and attractive clothes, we deprive him of the most primitive and necessary incentive to effort. Some public and private training schools have succeeded in giving their children the advantage that comes from living with these stimuli in normal operation. The principles to be followed are:

(a) Opportunity is provided to engage in work of various kinds suitable to the various levels of ability.

(b) Work is not required merely to fill in the time or to keep the children out of mischief. It is not held over them as punishment. The product of the work is such as will supply their needs, or can be exchanged for the things they need.

(c) As far as possible, the children pay for what they get, for instance, room, food, and clothes. A minimal kind of quarters, food, and clothes is given to all, but provisions of better kind are made available for all who earn enough to pay for them.

(d) A scale of wages and payment for products is provided which is as nearly as possible that of the community in which the institution exists. This arouses the desire to earn and it provides the self-respect incident to self-support. Unfortunately manufacturers and labor organizations oppose the sale of supplies produced in state institutions and thus throw an unfair burden upon taxpayers for the maintenance of the inmates, and, at the same time, make it impossible to develop in dependent children the qualities that lead to independence and self-respect.

(e) The spirit of the whole working group is the most important factor. It can best be built up in a new institution; but in older ones it can be started by separating a selected group from the others, and then adding to it one by one boys and girls who catch the spirit.

(f) Self-government by the members is to be encouraged, but always subject to regulation from the superintendent. At the outstart, the self-governing organization must contract to gain certain clearly formulated objectives.

(g) Such principles as the above can be applied only by a director and staff specially selected because of experience and ability. The personnel of the staff is the critical factor. An institution of this kind would soon attract to its staff the graduates of colleges, some of whom would seek opportunity for apprenticeship in sociologic work; others, a permanent basis for productive life work.

3. *Adequate medical service.* We have noted that many of the intellectually deficient and psychopathic persons in any state are thus defective not from inherited fault of germ plasm but from injury to the brain at birth or from infectious diseases contracted by mother and child before birth, or by the child shortly afterwards. Many women are unable or unwilling to employ skilled obstetricians and submit to the crude manipulations of neighbors or unskilled midwives. Precipitate or prolonged labor and the rough use of instruments are constant causes

of damage to the infant brain. The preventive measure in such cases, of course, is the employment of skilled medical attendants for the delivery of infants and for their care throughout childhood.

In spite of the wide-spread damage done to the brains of children by infectious diseases, we still frequently hear of the "innocent diseases of childhood." Mumps, chicken-pox, measles, scarlet fever, and all of the common and uncommon infectious diseases, are capable of damaging the blood vessels and the cells of the brain and thereby crippling its function for life. As a result, deficiencies of intellect or character appear as the children grow to adult life. The strict observance of quarantine regulations and the utilizing of such special preventive measures as vaccination and immunization are at present more dependable as preventives of these mental defects than are sterilization and eugenic selection.

4. *Home atmosphere.* In dealing with juvenile delinquents we often observe the effects of bad inheritance and of disease or damage to the infant's brain as an underlying cause of the trouble. Yet more often the reason for the perversion of character has been ineptness or positive maliciousness of the parents. The development of an infant's organs depends upon the physical conditions within the mother's body before its birth; the child's personality is still more sensitively dependent upon the home atmosphere during its first five years.

III. NERVOUS BREAKDOWNS DUE TO DISORDERED EMOTIONS

A well-known surgeon found that the losses in money and scientific efficiency in the staff of his clinic from jealousies, hurt feelings, and fear of being ignored, outweighed his losses from bodily illness and accidents. A large New York department store employed a wise woman as counsellor for its saleswomen. From that time their leaves of absence for headaches, indigestion, and various neurotic disorders steadily diminished.

If through an appropriate device we observe the inner wall of a dog's stomach when a friendly keeper offers him meat, all the glands are seen to pour out healthful gastric juice; but if a whip is shown, the dog's stomach wall dries up, or a perverted form of secretion appears.

Our grandmothers observed that the face of the girl disappointed in love grows pale and her body emaciated. We know that her blood loses red cells and hemoglobin. Many worried business men develop thickened arteries and high blood pressure. Girls and boys with guilty feelings about their sexual indulgences unconsciously transmute their psychic discomforts into intestinal pain, headaches, and various phobias or obsessions. A young secretary ten years ago asked treatment for "epileptic convulsions." After she had confessed an amour that had occurred years before under somewhat disgusting circumstances, and had been relieved of an unfounded fear as to its possible consequences, the convulsions ceased and have not recurred.

Physicians and the general public look with proper admiration upon the sleuth-like detection by scientists of the microbic and bio-chemical causes of diseases. Small-pox, malaria, yellow fever, typhoid fever, diabetes, and a long list of scourges once supposed to be unescapable, are now removed or under control in all regions in which people are intelligent enough to follow well established preventive and curative procedures. In all of this wonder-working, medical science has one unvarying program: it discovers the cause of a disease, and then finds a way to remove it and its effects. That in brief is the story of medical progress.

Removing the Causes of Nervous Breakdowns

It is, however, a peculiar fact that patients and even many physicians are not interested in detecting or removing the cause of an undramatic illness which does not call for the use of elaborate instruments or operations. A woman who suffered many years from headaches was told by a friend that it might be due to a brain tumor. She went away disappointed when the cause was found to be her dietary indiscretions, remarking as if in criticism of the physician, "I'm sorry. I hoped I had a brain tumor." A few instances of crippling diseases that have "uninteresting" causes will illustrate this attitude.

1. Intolerable Social Situations

A skilled automobile mechanic had been forced to give up a well-paid position because of insomnia, trembling, and indigestion. We physicians in cases of this sort are prone to examine the patient for a long list of cardiac and intestinal diseases; and, finding no trouble in these organs, tell the patient, "You have no disease. Nothing but nerves. Get back to work and you will be all right." Unfortunately, patients after receiving this advice often proceed to use bromides and other depressing drugs which commonly only increase their nervousness.

In this case the physician made use of a tactful social worker and discovered the actual cause of the disease. It was not due to inflammation or toxins. There was no displaced vertebra. There was, however, a seriously misplaced mother-in-law. This woman had come to live with the patient's family six months before his illness

began. She was a trouble-maker. It was harder to persuade the man to arrange for her elimination than it would have been to get his consent for the amputation of a leg; but when she had departed and he was again able to return to a peaceful and congenial home after his daily work, successful living began again.

2. The Dread of Inferiority

Man cannot bear to live alone. He seeks companionship, and he becomes restless and dissatisfied if he fails to secure some measure of recognition and admiration from his fellows. Unless he feels that others find value in him, he loses zest, his nervous energy diminishes, and emotional disorders arise which often side-track him in the struggle for existence.

An ambitious society woman developed paralysis of both legs. There was no disease of the muscles or nerve-centers to explain her weakness. Conversations with this patient revealed her gradual realization that she was not popular; her dinners and receptions were poorly attended, and her name was not included in the invitation lists of several socially important functions. For a while she tried to explain these slights as due to the envy of certain rivals; then she gave up plans for entertainments at her home because of not feeling well. Finally, dreading a particular dinner at which she knew she would play a sorry part, she suddenly lost power to move her legs. Hysterical maladies usually have such a train of emotional frustrations as their explanation.

Help for nervous breakdowns is sought by students who fail to get into fraternities. One business man was encouraged through twenty years of struggle by the hope that he would be regarded as the shrewdest investor of his city. The failure of one large speculation brought on a deep melancholy and he attempted suicide, not because of the financial loss, but because he could not bear to be considered a second rate business man.

An athletic school boy was permanently crippled by an accident to his foot. No longer an athletic hero, he stopped going with his playmates, kept much to himself, and became sensitive and suspicious. Girls had formerly favored him; he now thought they ridiculed him. He dropped to lower grades in classes and finally was

brought for treatment as a mental patient. If his family and teachers had encouraged him to keep in touch with his playmates, to follow other interests, and develop some other powers, his emotional integrity would probably have continued.

Pain is beneficent. The pain of a sprained ankle stops us from walking, thereby preventing permanent damage to the joint, and stimulates us to effort to cure the injury. Emotional pain at the realization of inferiority spurs us to effort to develop our latent superior qualities. It, too, is beneficent. But we continually try to find short-cuts to shut off the pain that presses us to effort. The self-indulgent eater with headache removes the danger signal by taking aspirin—and continues the over-eating. The girl who observes her lover's failing interest suffers pain—which ought to spur her to effort to dress and act attractively, to shine in the circles which he frequents, and to win his admiration by gaining value in his estimation. Instead, she tries to lessen the clearness of realization of her shortcomings by criticizing the women who are winning his favor, and to gain his pity by plaintiveness.

3. Unwillingness to Be Ourselves

Through the influence of friends, the son of a bank president was made president after his father's death. For a few years the bank went steadily downward until he was asked to resign. The shock to his pride left him robbed of self-confidence, confused, nervously ill, and stalled, for more than a year. He then took stock of his own assets and concluded that he was not an administrator, but he was sure he was an able bookkeeper. Having secured a position at his own best level, health of mind and body returned, then self-confidence.

Many men and women go to bed every night insecure because of their fear that they cannot keep up their poses; and they awaken early in the morning shivering because they expect exposure that day. A school superintendent, ill-fitted for discipline and incapable of organizing her teaching staff, lived in fear she would be found out, and gradually sank into neurasthenia. She was persuaded to resign and to become a primary teacher, whereupon her digestion became good, she gained weight, and found life worth living.

The word "expert" means experienced, and is derived from the Latin for "one who has gone clear through." Ambition (from the Latin for "walking around" as a candidate) is beneficent if it spurs us to develop our best inherent capacities; but the only safe way to eminence is by first proving capacity at a low level until we and others are sure of our powers. Then *self-confidence* and *earned reputation* will follow, which are the two ingredients for emotional stability. When we grab for degrees, fame, and position, as ends in themselves, our days are full of fear, and equilibrium is unstable. Nervous strain, uncertainty, and a galaxy of emotional symptoms, camp on the doorstep of the man whose chief concern is to maintain a pose; the ass lives in fear lest the lion's skin slip off. When our deep satisfaction comes only from accomplishing results, we let the world worry about its estimate of us. An expert blacksmith can be a greater man than a self-distrusting professor—and vastly stabler emotionally.

4. Worry

Man's brain gives him advantage over lower animals largely because it automatically presents to him mental pictures of future situations. The dog sees a hot coal fall from the hearth to the floor and is not excited to action; man sees it, and at once there appears before him a future picture of his house burning and destroyed, which stimulates him to act.

We can call up these mental pictures at will. Look at Medusa's head and you feel horror. Call it up repeatedly, and you can continue your suffering through the night. Some men's brains persistently present the gloomiest future possibilities for every event in life. Her child sneezes and immediately the mother faces a picture of a funeral with the little one in the coffin. A stock investment drops two points; the investor sees himself penniless and his family in the poor-house.

Worry is diseased foresight. Some morbid persons get a pathological joy from whipping themselves with thongs into which tacks are twisted, while others torture themselves by gazing upon the most unlikely pictures of future misfortunes.

There is no magic psychological formula to cure worry, but serenity can be attained gradually by those who, on seeing the vision of future misfor-

tune, at once start active effort upon their environment to change its trends so as to bring about a desirable result in place of the pictured disaster. Working to attain a satisfying result fixes that goal as a picture in consciousness; with it before the mind's eye, enthusiasm arises responsively, and the nervous organs generate energy for the effort.

5. Misconceptions About Sex

Nature is working to build a race. To do that she has to produce individuals as the units, the bricks that are to form the larger structure. The production of children is painful to the mother, and lays heavy responsibility upon both parents. If no other factors entered the process, the race would have died out with Adam and Eve; so nature contrived a way to keep up a continual supply of babies by loading the procreative acts with the highest sensory and emotional pleasures known to man. As a result, men and women are willing to sell all they have to gain that pleasure as an end in itself. But if in the process they persistently try to beat the game by snatching the reward while omitting to deliver the goods, nature comes back at them with a horde of big and little scourges.

One of the pathetic spectacles often seen by physicians is the climacteric woman who has come to realize that her time has passed, and the children whom she refused to bear because of the inconvenience now cannot be borne. Lonely old age is for her all that the future can bring. This facing of a process of slow withering brings to many a woman a deadening melancholy that may become lurid with fear and agonizing remorse for all sorts of insanely imagined misdeeds, which she conjures out of the errors of her past life.

* * * *

A wholesome and necessary reaction is now in full swing against prudishness and unfounded fear in regard to sex, which has the virtue of frankness even though at times it is not guided by good sense or good taste. It would be better to be burned a few times than to go through life in terror of fire, and looking upon it as a mystery or a malignant enemy. Even scars and disfigurement would be preferable to superstitious fear and total avoidance of one of life's most beneficent forces.

Yet, on the other hand, one need not burn off an arm to prove he is not afraid of fire, or to show his appreciation of it. * * *

IV. THE DEVELOPMENT OF PERSONALITY IN CHILDREN

Observation of a large number of lop-sided personalities has impressed me with several steps in the first years of children's lives which, if wrongly taken, produce maldevelopment or perversion of the basic feelings concerned in character; but which, if taken aright, lead to mental effectiveness and serenity. The attitudes toward life gained by children in the first four or five years determine the future careers. Here are briefly outlined several of these steps. If they are set forth somewhat dogmatically, it is only for the sake of necessary brevity.

A. The selection of ancestors. The choice of marital partners fixes for all time the upper limit for the biological attainments of the resulting offspring. Unfortunately a child has no vote in the choice of its ancestors, which is all the more reason why ancestors should have a heart and think a moment before filling those positions.

Falling in love is a more serious matter than selecting an automobile. The

physical and mental pattern of every child is fixed in the germ plasm contributed by the two family lines at the time of conception. One wonders at the casualness with which even educated young men and women select their mates. Often the decision rests upon a bit of color, clothes, a few tricks of manner, and passing sexual attractiveness. If one had to cross the Sahara in an automobile, he would not select his car merely because of its paint and the sound of its horn. Now, the few decades of the married life of the couple themselves is something of a journey; but the offspring must continue the journey for a millennium.

I mention this as the most important factor in determining the mental excellence of children. The hope for a future healthy-minded nation depends on the foresight of present-day youth as they determine who shall be the ancestors of the coming race.

B. The home does for character what the mother's womb does for bodily

organs. Supposing that the pattern of body and mind fixed by the germ-plasm is good, the whole future realization of that pattern will depend upon the environment of the infant's first years.

Regarding the relative importance of heredity as contrasted with environment, I offer you this statement of what I believe to be the truth: heredity supplies in the germ cell the pattern of the entire anatomical structure and all of the physiologic and psychic activities of the future mature being. Environment, if *most favorable from start to finish*, will permit and stimulate the unfolding of that pattern in all its perfection. Unfavorable environment can hinder or pervert the development at any stage and to any extent. Environment cannot add any excellence not already provided for in the original germ-cell: for instance, one cannot influence an acorn to grow into a pine tree.

A full-blooded colt in the care of a harsh, mean-tempered master will not develop the speed, gentleness, and obedience for which nature prepared structural arrangements in its body. If the environment is controlled by a kind and understanding trainer, those good traits in the colt will spontaneously appear, exactly as the leaves form themselves on a tree in the April sunshine.

Perhaps someone is troubled because a child's character is more complex than a colt's, so that, indeed, to formulate and supply ideal conditions for its development would call almost for omniscience. If one must think of omniscience let him seek it in the designing of the child's nervous system, which is so remarkably constituted that, if family life supply only a few wholesome conditions and avoid efforts to force its growth, normal personality will unfold itself.

Very simple-minded men secure near enough to ideal conditions of soil, moisture, and sunshine for the development of seeds, even though they know nothing of biology and chemistry. So in our homes, the most favorable environment for the growth of character does not depend so much upon formal learning as upon good feeling and good sense. The world's great characters spring up in homes where the atmosphere is marked by sincerity, affection, courage, good sense, and industry. Any of us can surround our children with these.

Art and intellect have produced nothing in any civilization that is of equal significance in terms of human welfare with well ordered family life. The making of a home in which vigorous-minded children develop, and to which outside men and women come for courage and inspiration is a career worthy of the best intellect and the greatest art.

Medical science, law, and sociology are working at unessentials when they absorb themselves in behavior correction, curing diseases, and punishing culprits, while our young people show as little forethought in marrying, reproducing, and divorcing as in choosing and throwing away cigarettes, and while our homes are becoming as uninspiring and casual as cafeterias.

C. *Infants and growing children need much time alone.* Up to the moment of its birth a child's nervous system has been relatively unstimulated. It now needs months of quiet and leisure to feel around with its hands and thus discover its own bodily parts, to become accustomed to the differences between its legs or arms and the various things against which they strike. The sounds and lights that impinge upon ear and eye are new experiences. It will grasp all of these outer realities gradually and in proper sequence as it lies clean and undisturbed in its bed, or later entertains itself in its protected enclosure.

Most babies are not allowed this opportunity to become familiar in an orderly way with themselves and the outer world. They are dragged around, rocked, held under electric lights, sung and chattered to, cooed at and fondled, and the adults explain this irrational conduct by claiming that it proves their affection for the child. They must keep "doing something" for it.

The Indian squaw wrapped her baby in a blanket and suspended it safely in a basket from the limb of a tree. Fortunate papoose! It communed with the leaves and birds and it listened to the music of the breezes; and—must it be said that it was fortunate because its mother was not educated?

D. *Let the baby go to sleep.* After an infant has recovered from the rough journey into the outer world and has been bathed and covered with a reasonable assortment of clothes, if placed in a quiet, airy room, it will relax, breathe evenly for a moment, and then go to sleep. If, from the first sleep on-

ward through its early years its mother will but leave it to spontaneous, natural sleep. the child will acquire one of the simplest yet most valuable of all the prerequisites for health and happiness. The regular sleep rhythm will be established. Babies do not need to be "put to sleep" by rocking, singing, hand-holding, and being snuggled against their mothers. These self-indulgences of a mother condition a baby so that in adult life it may have to use drugs or amateur psychology to coax itself into unwilling slumber.

E. *Do not reward a child for crying.* Babies are helpless. They have no means of caring for their own needs or meeting dangerous emergencies. But nature is a shrewd contriver. Each baby has been equipped before birth with a self-starting signal of distress which begins as a plaintive, persuasive sound, and then grows into a noise so disagreeable that it calls to the baby's aid not only the parents but all the neighbors within ear-shot.

This is all good; but crying, like any other easy way to riches, will be substituted for the more difficult but normal ways. When a child cries, it should be inspected and any necessary service quietly performed. If it continues to cry, it ought to be ignored. When it finds that pleasant rewards in additional food and untimely entertainment follow, it develops the habit of summoning food and entertainment at will. The mother takes it up, and does this or that as a bribe to end the noise. If the cry occurs during the night, the father is forced into service to carry it until he is exhausted and it goes to sleep. Later the cry is used to force the father to buy it a bicycle, or the mother to excuse it from school, or from its share in the housework. When the girl has married, she will cry when her husband's business plans do not suit her. When met by the stern realities of fate, instead of meeting them with intelligence and courage, such persons surrender as neurotics or make appeals to the pity of their groups.

F. *Allow children to develop their own spontaneous feelings.* Individuality is attained when one feels in his own way, and then is guided by his own feelings. You may entice a child to try spinach, but you can't argue or beat him into liking it.

Many parents coach a child as to what it ought to like in art and literature, or believe in religion and morals.

If a boy has in him the capacity for responding to beauty, allow him to gaze at beauty. Nothing further is needed. When we urge children to like things or people, we do them a double injury. Urging arouses self-conscious effort to generate feelings, and that kills feeling; it also conditions natural responses with the disagreeable sense of obligation and dependence.

Often a yet worse result follows: the child may be bribed or forced into saying that it enjoys a thing when it does not. This produces insincerity, hypocrisy. The process is what the Bible calls the sin against the Holy Ghost: the child has followed a false leader, has been forced to desert the one safe guide toward excellence.

Suppose that a particular child has all the neuro-muscular arrangements for appreciating music and for producing it. If the parents were to subject it to silence or to discordant noises, its longing for music might never be aroused. If they allow it to hear harmony at the level of its power of appreciation, and if they encourage it to practice on some instrument, the in-born faculty will begin to unfold itself. From that moment onward its own desires press it forward. It is by this same process that appreciation of the higher values of courteousness and honor, and the exhibition of the corresponding behavior, develop. A fine home atmosphere and true-heartedness on the part of the parents and teachers supply the best stimulus for arousing the best cravings in children.

Biologically appetites and cravings are to be considered nature's call to use a capacity that is now ready to mature. As we feel pressed by feeling to act upon our environment so as to change it into something more to our liking, that effort calls out and develops the appropriate inherent faculties.

G. *The development of self-reliance.* Allow a child to decide and do every needed service for itself which its development up to that time makes it able to do.

When an infant needs solid food, nature has already prepared teeth, chewing muscles, and a whole new set of glands to meet that need. The effort to chew the first solid food starts the new apparatus into action. When the time comes for walking, for tennis, or for piano-playing, as the child attacks its environment, new zests come into being, the faculties spring into action,

and the actual use of them thereafter develops their strength and efficiency. Parents who save their children effort, who spare them labor and study, are depriving them of the one natural means of calling into play new powers, and of perfecting these powers.

Every human being must meet trouble and endure pain and hardship. Those children develop endurance, patience, and courage who have been allowed to deal with the difficult situations that arise in the day's work and to rough it in the woods and in athletic games. Even the faculty for decision itself remains undeveloped in many persons whose overbearing fathers or over-positive mothers have decided all of the domestic or the ethical and religious problems for the family.

It is good for children to read the stories of heroes and of the men and women who have met life with fine moral and religious feelings; but it is a serious error to force their theories and beliefs upon young people in the form of dogmas and creeds. Let them have the benefit of knowing what the great men of the world have done and believed, but leave them to develop their own beliefs under the stress of dealing with the realities of life. It is by doing things, not merely thinking or reciting them, that children's powers unfold. Like the appendix vermiformis, the brain atrophies and gets into trouble when it is not making a difference for good in things around it.

H. When *punishment is applicable*, it must be given in such a way that the child, after the episode, will feel surer than ever before of the parent's affection, good sense, and fairness. Experience is the best teacher, but at times the tuition is costly, for instance when a too daring child falls from the roof. Wisely applied, punishment spares wasteful and unnecessarily prolonged experience. Nature herself punishes; she supplies pain when an infant has eaten too much, and thereby warns him and saves him from permanent breakdown.

Law too often punishes for vengeance. Courts and parents frequently punish merely to vindicate their own dignity. All such punishment produces vindictiveness and defeats its purpose. If marked by fairness, good will, and obvious desire to help in the overcoming of a fault, it acts upon the offender as an effective conditioning factor to stop disadvantageous behavior until

the better satisfactions of good behavior can be realized. For this reason punishment has to be accompanied by positive effort to induce the offender to try out the better activities, and thereby to discover their rewards.

I. *Fear is not a constructive developmental process*; it is a physiological device for meeting dangerous emergencies and, for the time, it interrupts development.

There are certain forms of childish sexual experiments such as masturbation and investigations in anatomy, which parents are determined to prevent by fair means or foul, and regardless of expense to the child's future welfare. Such performances are responses to normal tendencies and, so far as we have dependable knowledge, in most children cause no damage; they appear to be an orienting step toward mature sexual activities. Parental efforts at regulation might well be limited to persuasion on the basis of good taste and what is acceptable to the group. The best expedient is to get children interested in sports and productive activities, which are the safest preventives of sexual stewing. Yet, most parents warn their children that insanity and physical disease will follow any sexual actions, and some parents even add punishments and invoke the penalties of religion and superstition as restraints. This treatment drives children into clandestine indulgences, and attaches to normal sexual feelings a grotesque congeries of perverse emotions. Bashfulness, prudishness, and unhappy marriage relationships, are frequent results of this use of fear as a deterrent. The severe neuroses, that physicians are called upon to treat, occur most often in patients who were in childhood conditioned by fear of their normal sexual instinct.

The facts regarding reproduction are to be treated as commonplace matters of fact between parents and children, without prudishness or embarrassment, and especially without misrepresentation. The correct, dignified names of the sexual organs and processes are the simplest and best. When frankness and simplicity mark the parents' treatment of this subject, the children never have reason to enshroud it in mystery or to become paralyzed with dread when sexual thoughts and appetites arise.

J. The avenues of communication between parents on the one hand and children on the other are to be kept open at any expense. These adult counsellors are the most important component in children's environment. To a child, the home and school are what the soil is to a growing seed. A seed enclosed even in a golden capsule is hopeless. It must maintain intimate contact with the soil, or growth ceases. Children who fear or distrust parents or teachers become imprisoned within themselves or seek outsiders as their fostering human environment. It is better to allow a child to try out any form of behavior than to lie to him.

Kipling's "His Majesty the King" is the classical thwarted child, emotionally separated from his parents; and the rigid Miss Biddums stands for too many school teachers of today. Luckily, the Commissioner's wife supplied the needed element in his infancy, and he grew in spite of his home.

A young girl said to me, "I didn't know. Mother tried several times to tell me about sex, but she was always so embarrassed that I felt awkward and more mystified than I would have been had she kept silent." Does not this episode explain the paradox that the children of frankly Bohemian parents often develop the most open and well-balanced personalities? The magic was not in the parents' sexual unrestraint, but in their frankness and good fellowship with the children.

Unavoidable

"AUTHORITIES said the accident was unavoidable."

And nine times out of ten the authorities lied.

The unavoidable accident on highways or anywhere else is so rare as to be almost non-existent. When a road is flung up under a car by an earthquake, when a tidal wave rolls across the highway from the sea, unavoidable accidents do happen. But when men are killed or cars are damaged on ordinary highways, the chances are overwhelmingly that some human being was to blame.

The all too frequent statement "authorities said the accident was unavoidable" is generally a statement of official laziness or official stupidity or official wish to protect from blame either the living or the dead.

As long as accidents occur and the causes not ascertained and announced, the rising toll of accidents are permitted to teach no lesson of safety for the future, and to furnish no example for other culpable drivers.

Accidents are happening and not for lack of reasons. A first step toward safety should be the determination of reason and blame in every accident that occurs.—*News and Observer.*

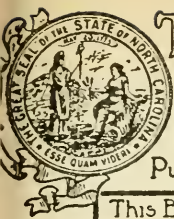
Early Diagnosis and Treatment of Syphilis

By JOHN H. HAMILTON, M.D.

Syphilis is most communicable during its early stages. Those patients with early untreated syphilis are principally responsible for its spread. If we are to protect the public, we must treat these carriers until they are rendered non-infectious.

The welfare of the patient also indicates early treatment, for proper medication in the primary stage will produce best results at less cost.

Why do we neglect early treatment when it promotes public safety, patients' well-being, and economy? Probably most delay in diagnosis is due to the tardiness of the patient in consulting a physician. Frequently the patient attempts self-medication until convinced of its certain failure. A short time ago, only well-equipped specialists had laboratory aid in the diagnosis of primary syphilis. Now, this procedure is available to every physician in North Carolina. The State Laboratory of Hygiene supplies a specimen container in which the micro-organisms will live for several days. Serum from the initial sore is collected in this container and sent to the laboratory where it is examined with a Dark-field microscope. With satisfactory specimens, definite findings can be made in a few minutes. With this aid to the diagnosis of primary syphilis, prompt treatment is encouraged and a step is made toward control.



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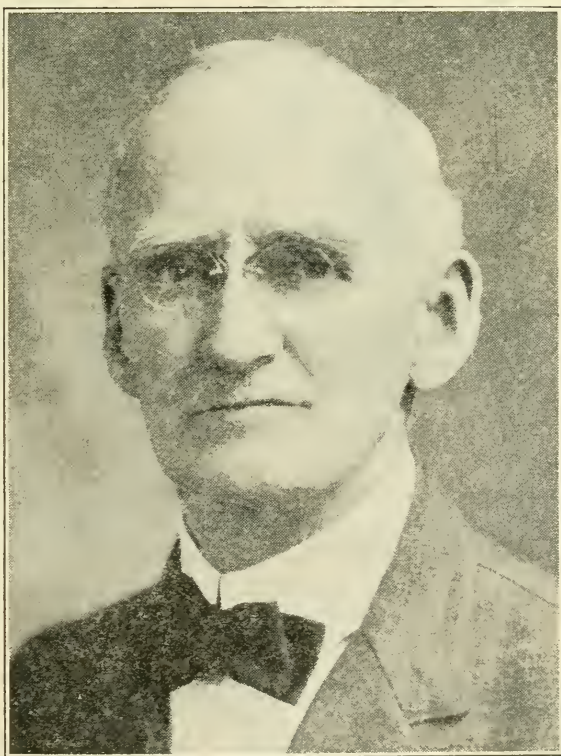
Vol. 51

FEBRUARY, 1936

No. 2

MR. GILBERT C. HUNTINGTON

CHARLOTTE, N. C.



Mr. Huntington came to Charlotte in 1899. He later became Interstate Secretary of the Y. M. C. A. for the Carolinas, and served in that capacity for nineteen years. Please read his letter on page 3 of this issue.

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FREE HEALTH LITERATURE

The State Board of Health publishes monthly **THE HEALTH BULLETIN**, which will be sent free to any citizen requesting it. The Board also has available for distribution without charge special literature on the following subjects. Ask for any in which you may be interested.

Adenoids and Tonsils	German Measles	Scarlet Fever
Cancer	Health Education	Smallpox
Constipation	Hookworm Disease	Teeth
Chickenpox	Infantile Paralysis	Tuberculosis
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Don't Spit Placards	Measles	Typhoid Placards
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The following special literature on the subjects listed below will be sent free to any citizen of the State on request to the State Board of Health, Raleigh, N. C.

Prenatal Care (by Mrs. Max West)	Baby's Daily Time Cards: Under 5 months;
Prenatal Letters (series of nine monthly letters)	5 to 6 months; 7, 8, and 9 months; 10, 11, and 12 months; 1 year to 19 months;
Minimum Standards of Prenatal Care	19 months to 2 years
Breast Feeding	Diet List: 9 to 12 months; 12 to 15 months; 15 to 24 months; 2 to 3 years; 3 to 6 years
Infant Care. The Prevention of Infantile Diarrhea	Instructions for North Carolina Midwives
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THE Health Bulletin



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FEBRUARY, 1936

No. 2

A Helpful and Encouraging Letter

WE have received many encouraging letters commenting on our reaching the fiftieth anniversary of the establishment of THE HEALTH BULLETIN, as described in our December issue. We appreciate every one of them as well as the kindly comment of a few of our newspaper friends. One of these letters is so stimulating and inspiring and so unusual that we have obtained the special permission of the writer, Mr. G. C. Huntington, a retired minister of Charlotte to publish it. We feel sure that all of our readers, especially the older ones, will appreciate his communication.

Mr. Huntington's Letter

"Dear Doctor:

"I have received the current issue of the HEALTH BULLETIN today and have read it as I always do with much interest. I am 81 and my wife is 75 and we both have been interested in the article on 'The Problem of Old Age.' We have found many valuable suggestions for ourselves and our children in the Bulletin. We have four children, eight grandchildren and one great-grandchild. Only one death (a child two years old) in our family in 57 years of married life. We married in New York State. Spent 18 years in Colorado and came to Charlotte in 1899.

"My father died of tuberculosis in New York State at 48, but my mother lived until 75.

"I was Interstate Secretary of the Y. M. C. A. for 19 years and had a very pleasant acquaintance with Dr. Lewis during that period. Developed a "blocked" heart three years ago and had to retire from active service.

"Don't give way to that 'dead line' feeling. Your work in the Bulletin has been a potent factor in the health improvement in the State and I trust you will find much joy in continuing it along with other duties.

"We shall appreciate being favored with continuance of our copy for the present. We know not how soon the Lord will call us to our Heavenly Home.

"Yours sincerely,

"G. C. HUNTINGTON."

A Symposium on School Sanitation, or Rather Lack of It

A Case It Seems of Everybody's Business Being Nobody's Business

THE efforts made in North Carolina during the last twenty-five years to provide for every school in the State a safe and practical type of approved sanitary system has more angles than Carter's field had oats. The net result today is we have no policy on the subject and no one individual or organization of the many concerned seems to have any authoritative voice. School sanitation in this State at the present time seems to be the living example of the original vicious circle. Complaints of filthy and dangerous conditions coming to the State Board of Health every week cannot be corrected by that body. If the complaint is passed on to the State Department of Public Instruction, it probably just as quickly travels from there to the State School Commission. From there it may be just as promptly sent back to the Board, back to the Department of Education, on to the County Superintendent of Schools or to the "files." The county officials promptly stand from under with the simple statement that the State is running the schools, or perhaps it (the complaint from a harassed and horrified grade mother) is sent back to the local school committee, who in turn seem to have no trouble in convincing everybody that they have nothing whatsoever to do with it. So there! From an administrative standpoint—although results were the same, that is zero—conditions were not always quite so bad. Back in the dear dead days of long ago, say about 1919, Wiley H. Pittman, then chief clerk to Dr. Joyner, State Superintendent of Public Instruction, stung by criticism on the

subject, wrote and put through the General Assembly a law that had plenty of teeth. In those days the county superintendent of schools was a man of much power and authority and consequently of responsibility. He could be reached by the Board of Health. But just about the time everything was set to really get something done, the educational forces launched their big State-wide consolidation plans. On every hand the question arose: as this little schoolhouse is to be abandoned in a few months why insist on a waste of taxpayers money in providing sanitary facilities? So there again!

Everybody knows what happened. Great fine-looking buildings (looking from the outside) dotting the countryside everywhere flanked by the two dirty-looking little shacks, one in the northwest and the other in the southwest corners of the grounds. In those buildings in the cities, towns and villages where water and sewerage are available in many instances the construction was faulty and the maintenance is careless or indifferent.

We are not disposed to criticise anybody for past mistakes. What we are concerned about is present and future needs. And when we say "needs" we do not mean maybe.

Proper and safe school sanitation in this State is dependent on several important considerations. We herewith enumerate a few of them.

1. Some one individual either in the State, the county, or the school district whose job it is to see that a safe and working system is present in each and every schoolhouse and that the sys-

tem is always kept clean and safe and in working order. And further, whose head (political) will be cut off if he does not deliver the goods.

2. The construction, either—and preferably water and sewerage—or outdoor type must be properly and honestly constructed to begin with.

3. Facilities for constant maintenance must be provided. And what are some of these "facilities?" Answer: Money to provide a competent janitor, plenty of water, soap, scrubbing mops for the janitor, and individual towels and soap for the children.

4. And most important of all a principal who is interested (and who will be promptly fired if he isn't) enough to see that the janitor performs his duty every hour of every day.

Several things have happened lately to precipitate this discussion at this time. To begin with we have a bale of complaints from the eight nurses, employed solely by the State Board of Health, who spend their time working to promote the health of the State's children. Not only their own description of conditions, but through the nurses hundreds of teachers have begged for help—grade teachers who have to live with the children, so to speak. In 1934 an outbreak of a dangerous venereal disease disrupted a school in a western county and several little girls were infected through no fault of their own. Recently a large consolidated school in an eastern county has been closed for the same reason. At last reports forty-six small girls were infected through contact with dirty seats in an outdoor pit privy. A horrible situation and a preventable one. Finally sometime ago a septic tank infected the water supply in a large consolidated school in another eastern county. All of sufficient importance to attract the attention of large sections of the public to the vital need for civilized efforts along these lines.

We will now let the editor of the *Greensboro Daily News* and the sanitary engineer of the State Board of Health finish this chapter.

School Sanitation

"We find it difficult to think straight, or to see straight—red is the color and it is pretty much of a blur—in connection with what is reported of conditions at the Winterville consolidated school in Pitt County. There the septic tank has become so confused with the water supply that it is difficult, if not impossible, to distinguish t'other from which.

"Warren H. Booker, sanitary engineer of the State Board of Health, has been down there looking things over.

"In spite of another digging or so of wells—wells are fairly simple in a section where one drives down a four- or six-inch pipe—there are reported 200 students of 725 suffering from intestinal disorders believed to have resulted from the water.

"And if this in itself were not bad enough, Engineer Booker is reported as saying that the same condition exists in one Anson County community and that he has reason to believe there are others.

"How much authority Mr. Booker has we cannot say. If he hasn't enough to close a school that cannot distinguish between sewage and drinking water, then he ought to resign. But if he has such authority and does not exercise it, then he should be fired.

"We are not singling out folks to shoot at, and we yield to none in our affection and respect for the State Department of Health; but if Sanitary Engineer Booker knows as much as he says he does, he should either do something about it or quit.

"We can't imagine Dr. George Marion Cooper—we are trying for no odorous comparisons, but simply attesting to the faith that is in us—standing for this sort of thing longer than it took him to find a committing magistrate."
—*Greensboro Daily News*.

Lack of School Sanitation

By WARREN H. BOOKER, *Director Division of Sanitary Engineering,
State Board of Health*

(In Greensboro Daily News)

“YOUR editorial article in the *Daily News* of November 29th has been read with interest.

Certainly the condition of our school sanitation in North Carolina is at a low ebb. School sanitation in North Carolina is, in my opinion, far worse than our prison sanitation. You will note from the marked article in the July, 1933, HEALTH BULLETIN that approximately 20 per cent of our North Carolina schools had no sewerage facilities at all—not even privies, only about 25 per cent had what might be classed as ‘fair to good’ sewerage facilities, and over 50 per cent had distinctly ‘bad or dangerous’ sewerage facilities. As for school water supplies about 33 per cent had no school water supplies on the school grounds at all, about 30 per cent had what might be termed ‘fair to good,’ or safe water supplies, and over 36 per cent had ‘bad or dangerous’ school water supplies.

“Our laws on school sanitation are indirect and cumbersome. Improvements to school sanitation usually have to be taken up first through the school principal, then the county superintendent, the county board of education, and finally through the board of county commissioners. Once an appropriation is made there is no provision that insures against locating wells in basements, or adjacent to sewer lines, septic tanks, or other sources of pollution. Often when we furnish plans and specifications for school water works and sewerage facilities, we actually find that the final construction job bears little resemblance to the original plans furnished.

“Contrast this with our State Highway and Prison Commission where it was necessary to deal directly with

only one man or one organization for the entire State, and where it was not necessary to sell the various principals, superintendents, boards of education, and boards of commissioners in 100 counties and countless cities and towns, and where it was possible to cooperate with one central engineering and construction organization to secure a uniformly high degree of prison camp sanitation that puts our entire system of school sanitation to shame all over the State.

“In an effort to secure a more direct and more workable law regarding school sanitation, the enclosed Senate Bill No. 565 was first submitted to the State Department of Public Instruction for concurrence, or approval, but this could not be secured until ‘the knowledge and consent of the State Department of Public Instruction’ clause was inserted. The writer then had the bill introduced in the Senate. It was approved by the committee on public health and referred to the committee on education. Efforts to secure favorable action through the chairman of that committee, now secretary of the State School Commission, failed and school sanitation is largely where it was.

“During the period of CWA, ERA, WPA, and PWA this office has used every effort to improve and raise the standards of school sanitation throughout the State, but with a limited measure of success. A number of school privies have been built, but such things are a very temporary makeshift at public schools. A few school water supplies with water carried sewerage have been installed, but much of this work has been done without plans, or without submitting plans to this Board for ap-

proval, and even where we have prepared plans they have not always been followed.

"This letter is in no sense an alibi, it is a simple statement of facts as the writer has seen them. Enormous economies in construction cost, and improvements in school sanitation—at least to the extent of raising school sanitation to the level of prison sanitation—could be made, if school construction could be centralized under one common central authority like our present system of highways and our present system of prison camps. It is also my opinion that much improvement could be made in our school sanitation were the State Board of Health made more directly responsible in matters of design, construction, operations, and maintenance of such matters as school water supplies and sewerage.

"It is the writer's opinion that while prison sanitation is important, our school sanitation is infinitely more important. It is my understanding that many of our North Carolina schools teach hygiene and sanitation in the class room. I would like immensely to see our State's practice in the school plant square with the teachings in the classroom."

Sounding the Tocsin

"Elsewhere in the editorial section of the *Daily News* there is published today a communication from Warren H. Booker, director of the division of sanitary engineering of the State Board of Health, who discusses the sanitation, or lack of it, in many North Carolina schools.

"The *Daily News* hopes that its entire family of readers will peruse carefully and thoughtfully Mr. Booker's contribution. It reflects, coming from the man whose business is school inspection, conditions which are not merely a menace to health but a shame and a disgrace to the State. If the revelations do not make the citizenry

see red, just as they made the *Daily News*, we do not know what will.

"The question immediately bursts forth as to what can be done about them. And sickeningly the answer comes back, little or nothing under the lack of authority, the prevailing political system and the multiplicity of school agencies and controls in North Carolina.

"As the statutes now read 'The County Board of Education shall provide, upon recommendation of the State Board of Health . . . sanitary privies at each public school . . . and a failure of the part of the County Board of Education and county superintendent to make provision for sanitary privies, or a failure on the part of the county commissioners to provide the funds shall be considered a misdemeanor, and either the county board, the county superintendent or the county commissioners may be fined or imprisoned in the discretion of the court.' While the principal of the specific school is not mentioned, he patently must be dealt with too. Three other agencies are mentioned, however, which should be sufficient division for all the buck passing anybody wishes. And can anybody imagine a Raleigh representative coming into a local community and getting a conviction against any or all of these agencies in the county court which is likewise a part of their political system?

"Provision of a good water supply is similarly circumscribed. 'It shall be the duty of the County Board of Education,' reads one section of the statute, 'to make such provisions as will give the teachers and pupils a good supply of wholesome water for the school term.' But, says another section, 'It is the duty of the school committeemen to see that the schools have a good water supply.' It is then set forth how they shall report to the county superintendent, and he to the County

Board of Education, et cetera, in the same meaningless and ineffective circle. Similarly the committeemen are intrusted with maintenance of all sanitation about the school grounds, despite previous enumeration of the duties and responsibilities of the other and higher school authorities.

“Effort was made at the last session of the General Assembly, as Mr. Booker points out, to secure a fixation of responsibility and empower the State Board of Health to deal with schools which fail to meet sanitary requirements. After a bill had been drafted, however, it was not accorded the approval of the State Department of Public Instruction until a clause had been inserted to the effect that health authorities could not act without the ‘knowledge and consent’ of that department.

“With that provisor included, the proposed measure was offered in the Senate, approved by the committee on public health and referred to the committee on education where it was allowed to die and the school sanitation situation left as it had been. It may be significant that the chairman of this committee has since been appointed

secretary of the State School Commission, which, as all who can see know, is the school boss in North Carolina, but which, in the statutory hodgepodge, which permits polluted drinking water and a disgraceful lack of sanitation generally, is nowhere, despite its ultimate responsibility and authority, mentioned.

“It is a shameful state of affairs; those who wish to learn more can do so by securing the health bulletin in which Mr. Booker reports his findings and conclusions in detail and which, incidentally, had been prepared long before the 1935 Legislature failed to take remedial steps. Two courses appear open: One is to give the State Board of Health full authority to safeguard North Carolina childhood and public health and the other is to centralize the present hopelessly divided school maintenance responsibility so that somebody can and will be slapped in jail for permitting any such intolerable conditions.

“Neither objective is likely to be attained until the North Carolina citizenry goes on the warpath; and to that end the *Daily News* sounds the tocsin.”
—*Greensboro Daily News*.

Students Demand Sanitation Not Interested in Legal Complications

By WARREN H. BOOKER, *Director Division of Sanitary Engineering,
State Board of Health*

OUR present day students stand four square for sanitation of their eating places. At Chapel Hill the cafes and public eating places were recently rated as to sanitation. The low rating cafes either voluntarily closed, or immediately began remodeling, cleaning up, getting health certificates for their employees, and requesting re-ratings, except one place. This establishment rated only 39% out of a

possible 100%. When indictment was brought against it, as required by law, the magistrate's court promptly convicted him, whereupon the proprietor appealed to the municipal court which held the State Hotel and Cafe Law enacted in 1921 to be unconstitutional. With the constitutionality of a law designed to safeguard the lives and health of the public questioned, the State could do nothing less than appeal to a higher court. This was

done, and the matter will be heard next March.

In the meantime, while this matter was pending in the courts, the *Daily Tar Heel*, a student publication, learned of the situation. This publication lost no time in publishing the original sanitary ratings of the various Chapel Hill eating places on its front page.

In addition, this courageous student paper published the following two-column, boxed editorial in black face type beside the ratings:

"The ratings issued yesterday by health authorities reveal what the campus has been waiting for.

"If the local courts' contentions will prevent local health authorities from administering a program which would bring Chapel Hill eating places up to scratch, then it is the duty of this newspaper and all students to cooperate on the basis of the health report and to demand decent health standards in the below-par establishments.

"This can be done by NON-PATRONAGE. We advocate a BOYCOTT of all unhealthy eating places until those establishments can prove that they have fulfilled the recent health stipulations to the satisfaction of the board of health by ameliorative changes.

"We do not question the courts' decisions. Our interest lies in student welfare and not in legal complications.

If the students are aroused enough to boycott unhealthy establishments, we will have been successful. At the same time, we suggest that students show their appreciation of the high standards of other eating places by patronage as they see fit."

In a few days after the above rating and editorial appeared, the proprietor called at the office of the State Board of Health and requested that a re-inspection be made of his establishment, and claimed that the first day the above facts and editorial were published he lost 100 of his customers, and was afraid he would lose more of them.

Needless to say, this Board will arrange to make a re-inspection as soon as possible. But it cannot run the risk of contempt of court or becoming involved in any legal technicality in so doing.

The encouraging features are the students' interest in matters of cleanliness, decency, and the general safeguarding of the public health.

More power to the *Daily Tar Heel* and other publications that are really and truly interested in advancing sanitation and the standard of living in North Carolina.

"The Venereal Disease Problem in North Carolina"

By J. C. KNOX, M.D., *Director, Division of Epidemiology, North Carolina State Board of Health*

ACCORDING to a recent survey there are approximately 375,000 cases of syphilis in North Carolina. Admittedly this is a conservative estimate. It therefore is apparent that the venereal diseases are becoming more and more a menace to the people of the State.

The so-called venereal diseases constitute a grave menace to the people of any community. They also are indirectly responsible for a great ex-

penditure of the taxpayers' money. Little intelligent thought has been given to the programs for the control of these diseases, chief of which are syphilis and gonorrhea. Certainly, in North Carolina there has been a retrogression rather than advancement in positive control efforts. One has only to cite the repeal of the law requiring physical examination before marriage for sufficient evidence of this attitude. The mere fact that these diseases are

not freely discussed, but are spoken of in whispers, automatically places them in the dark corners away from the light of truth. Thus it is rather difficult for those agencies interested in controlling these diseases to know just the extent of the problem that they present. We regret to observe that this attitude is sometimes prevalent in the medical profession, from which we should expect the greatest amount of enlightenment and cooperation.

Syphilis and gonorrhea are reportable to the North Carolina State Board of Health either by name of the patient or by number; if by number, then a corresponding number in the physician's files should identify the patient. Public health officials are not interested primarily in the name of the person suffering with the disease, but rather in the extent of the disease in the State and in prompt treatment made available for every case. However, we can expect to accomplish little in the control of these diseases as long as reporting is so seriously handicapped by the fear of publicity. Physicians and public health authorities in most instances look upon the venereal diseases as they would any other communicable disease: a condition to be treated just as any other disease. The attitude that either of these diseases is just punishment for "moral delinquency" is not the proper way they should be considered and just this attitude is seriously hindering the progress that should be made in control. Until these disease conditions are discussed frankly and given early treatment just as any other disease, we cannot hope to make any appreciable progress in their control.

Every case of syphilis or gonorrhea should be reported by name and the individual suffering with the disease should receive treatment until he is no longer a menace to the community in which he lives. A program of Public Health education with this as its ulti-

mate goal will do much to lessen the number of cases occurring in North Carolina.

"According to the *Social Hygiene Bulletin*, 'What the public needs to know particularly is that syphilis and gonorrhea are not punishments for crime and sin; that they are caused by disease germs which live and die in accordance with known biological laws, and spread from infected to susceptible persons in any community by methods fully understood and combatable. It is important for public welfare that people should recognize that these—the so-called venereal diseases—are kept alive by a series of separate localized outbreaks, rather than by continuous centers of infection in any community. This being the fact, it follows that in the case of syphilis, as in tuberculosis tactful sympathetic investigation to discover and treat those involved in each outbreak is necessary and of great value to families and to the community as a whole.'"

Such a program of Public Health education must be carried directly to the parents for it is the responsibility of each parent to see that his children are acquainted with the facts regarding these diseases, i.e., the methods in which the diseases are contracted and the necessity for early, careful treatment; the serious consequences that follow no treatment or inadequate or insufficient treatment; the complications and conditions which might arise from the infections which become chronic. Civic clubs also should be interested in learning these facts. Legislative bodies should be thoroughly familiar with the economical results of cases of the venereal diseases that have received little or no medical attention. A high case rate of chronic syphilis, particularly among the inmates of the various State institutions should be the cause of considerable concern to this body of citizens. Surveys show that an enormous sum of

money is spent annually to take care of these individuals who are inmates of such institutions because they are suffering entirely or partially with syphilis in some form.

A program as outlined above should be supplemented by a most active epidemiological study of each case and its source of infection. Little progress can be made unless such measures are instituted. Diphtheria, scarlet fever, smallpox or tuberculosis cannot be successfully combatted if such studies are not made, nor can syphilis or gonorrhea be controlled if this part of the control program is not closely followed. By an intelligent and frank approach to the problem of tuberculosis that disease has been very remarkably reduced in morbidity and mortality within the past twenty-five years. If a program for the control of venereal disease is as intelligently planned as that dealing with tuberculosis, and a similar sum of money expended for such a program, we can expect results that are in a measure comparable to the splendid results of our fight for tuberculosis control.

Proper treatment facilities for all cases of syphilis or gonorrhea, regardless of the ability of the patient to pay,

must be established if we are to expect the greatest amount of returns from a control program. Those who are delinquent in securing treatment must have an adequate follow-up to see that the course of treatment renders that individual non-infectious, because each acute case of gonorrhea or syphilis is a potential menace to other individuals. Sufferers with the venereal diseases too often regard the course of treatment, because it necessarily must continue over a long period of time, as a means for the physician to make money. This decidedly is not true. There must be adequate social service follow-up to convince the patient that such an attitude toward the treatment and the physician is entirely wrong and can only bring serious harm to himself when his course of treatment is willfully interrupted or discontinued.

The State Board of Health is planning an educational program by lecture and motion picture demonstration to various interested groups in the State. It is hoped that this program will create a desire for frank, open discussion of this grave problem, which in turn will result in a more enlightened public attitude and vigorous cooperation in control of the venereal diseases.

The Common Cold

By R. T. STIMPSON, M.D., Director Bureau of Vital Statistics

IT is evident that much has been learned during the past concerning the diseases afflicting mankind. That many diseases have been if not entirely, almost eliminated, and others have been greatly reduced. But the last word has not been said and past accomplishments are only an indication of the possibilities of the future, when our present knowledge has been applied to our daily lives. Furthermore, it is logical to assume that as time goes on we will learn the cause

and the method of prevention of many diseases that are uncontrollable today.

It has not been so long ago that many of the conditions for which we know the cause, and for which we have proven scientific preventive or curative remedies were believed to be caused by various conditions that we know today were fantastic. The selection of remedies for their treatment was often the results of fancy or superstition and had no scientific basis.

People believed that during the winter the blood became thick and slug-

gish. The approach of springtime was a signal for thinning of the blood. Sassafras tea was taken in quantities. Bleeding was practiced. Charms were resorted to.

Instead of cleansing a wound, an ax or other tool which had inflicted the wound was anointed with lard and guarded from rust in the chimney corner. Dusty spider webs were used to stop bleeding. Buckeyes were thought to protect from rheumatism and were carried in the pocket to charm away the disease. If a person had a chill he was bled. If he had a fever he was bled. Some were bled on general principles.

With the increase of knowledge these superstitions have been largely overcome. But there remains an almost universal infection the cause of which has not been solved to our satisfaction. It is a disease which people usually think of but little importance—the common cold. This is one of the big problems in preventive medicine that yet await solution.

The common cold produces an immense amount of illness and suffering, of inconvenience, and loss of time from work. That no deaths are reported as due to this condition should not cause one to lose sight of the seriousness of the common cold. It is not the disease *per se* from which the patient with a cold dies but from the complications. The most frequent of these are infection of a sinus, middle ear disease, infected mastoid, bronchitis and pneumonia.

Some authorities hold that to draw a sharp distinction between common colds, grippe and influenza is futile, and the term catarrhal fever is used to embrace the whole group. That the ordinary cold, grippe (or non-epidemic influenza) and epidemic influenza are different manifestations of one and the same thing may be debatable, but from the standpoint of practical handling of the cases the point is not a contro-

versial one. The successful treatment of all three is the successful prevention of their complications.

Catarrhal fever, meaning all three conditions—colds, grippe and influenza—is an acute infectious disease the exact causative agent of which is not as yet known. It exists locally as the common cold and grippe, and periodically and over large areas as the severe influenza. Both the cold and grippe occur with the greatest frequency during winter and spring. The severe type of influenza shows no predilection for season when first it appears, but always in the second and third waves which characterize an epidemic there is a definite increase in number of infections during the months of bad weather. The symptoms are almost too well known to call for any description: typical “cold in the head,” headache, chilliness, pains all over the body, especially in the back and legs, impairment of taste and smell, a non-productive cough with considerable soreness in the chest, fever, etc. The variability of these symptoms largely determines the diagnosis: if the attack is mild it is a cold, if severe, grippe; if severe and occurring during an epidemic it is influenza.

Although the definite cause of the cold is not known experience has led us to believe that certain practices aid in its prevention. Chilling of any portion of the body and excessive fatigue both no doubt lower the resistance to the infection and should therefore be avoided, especially during the inclement months of winter and spring. The crowding together of large numbers of people in closed spaces doubtless facilitates the spread of the disease.

It might be expected that one would develop a cold every time the causative agent or germ came into contact with the lining of one's nose or throat. It seems that some other factor is necessary to give it a chance.

Even though the cold is thought of little importance it no doubt so lowers the body resistance as to allow many more serious conditions to obtain a foothold. It is true that no deaths were charged to common colds in 1934, but there is no way to determine the number of fatal conditions started as a cold. Many deaths are charged to influenza and a great many more to bronchitis and the pneumonias. In 1933 there were approximately 1000 deaths giving influenza as the primary causes, in 1934 there were 300 less or in round numbers 700. For the first 9 months of 1935 there had been over 850 deaths from influenza.

Sinus trouble, middle ear and mastoid infection have already been mentioned as complications of the common cold. A cold may lead to conditions causing impairment of hearing or deafness in children.

The prevention of the cold with its possible complications lies in avoiding so far as possible those conditions favorable to its development. And especially is this true in regard to young children. Once the cold develops medical advice should be sought and above all it should be considered an infectious disease requiring the best of care to prevent any serious complication or its spread to other individuals.

“Cause of Death”

FROM time to time we hear criticism of the United States Bureau of the Census and even our own Vital Statistics Department for the “incompleteness” of the death statistics and for the sometimes apparently “misleading” statistics. A few newspaper editorials have recently been received severely criticising the United States Public Health Service for a recent statement to the effect that “such illness (meaning deaths from alcoholism and venereal disease) will probably be reported under some other name.” We are reproducing below an editorial recently appearing in the *Winston-Salem Journal*, one of the very ably edited daily papers of this State. A brief explanation of the situation may help toward a better understanding of the difficulties in the way of the statistical division of the Government in obtaining accurate statistics.

For more than a half century from time to time an international congress assembles for the purpose of agreeing on a definite list of “causes of death” to be filed on a death certificate. The effort has been to avoid vagaries in so far as possible and to put down the

exact and immediate cause of death. When there is the slightest doubt in the physician's mind he is urged to advise an autopsy. In the list of causes no room is left for speculation on the part of the physician. He is required to state two things: 1 the exact and immediate cause, and 2 the chief contributing cause. A good example would be say a death which resulted from “cirrhosis of the liver.” Every physician knows that this condition is often brought on by excessive alcoholism, but there are more than thirty other causes listed besides alcoholism. It is perfectly human for the attending physician, when it is left up to him, to put down what he knows to be accurate and exact without leaving a stigma against the innocent members of the family. In short, he puts down “the truth” but not always the “whole truth.” No one can go “behind the returns” on a death certificate when filled out in accordance with the international code by a responsible and reliable physician. The United States Government itself cannot question or change such a certificate unless evidence of fraud is present.

The statement of the spokesman for the Public Health Service evidently had in mind these difficulties. No one could more desire the exact facts and "all" of them on every death certificate than the public health divisions of national, State and local government. Hence we welcome a discussion by newspapers everywhere even though some stinging criticism must be endured. The attending physicians hold the eventual solution in their hands.

The editorial from the Winston-Salem *Journal* follows:

"A SURPRISING ADMISSION"

"The United States Public Health Service, which is spending \$3,450,000 of WPA money to classify the causes of death for the guidance of public health officers, makes the astonishing admission that 'it is not anticipated that alcoholism and venereal diseases will be reported with any degree of completeness—such illness will probably be reported under some other name.'

"If this means that a great public agency, supported by public funds, has no intention of giving the public the facts it is paying for, then this is a shocking statement indeed. Is the record to be admittedly false, and will no attempt be made to correct it? Have plans actually been laid to charge deaths from one cause into the records of another? If so, then legislators and public health officers will attack the

problem of public health guided by an official survey which has admittedly mapped the wrong road.

"The advance report of the census department points the need for accurate information on these diseases since it reveals that since repeal, deaths from syphilis—the most deadly venereal disorder—have increased over 6 per cent; that deaths from alcoholism have climbed almost 20 per cent; and from cirrhosis of the liver—an alcoholic disease—have increased 12 per cent, reaching the highest figure since the adoption of the Eighteenth Amendment, though still well under the prevailing rate for the pre-prohibition period.

"The fact that an investigation made last summer by the American Public Health Association revealed that the actual deaths from alcoholism were more than double the number which appeared on the records multiplies the vital need for an honest and reliable report of the present trend. It is true that the admitted inaccuracies are the result of indifference and not of malicious purpose. But that does not alter the fact that the United States Public Health Service is receiving \$3,450,000 of public money and, in return, is rendering the public a distinct disservice by submitting a report which will list alcoholism and venereal diseases by some other name.

"The liquor traffic could afford to pay generously for this favor."

Dr. W. A. McPhaul New State Health Officer of Florida

IN December the Governor of Florida appointed Dr. W. A. McPhaul State Health Officer of Florida. For the past four years Dr. McPhaul had been health officer of Pensacola and Escambia County, Florida. He has a long and successful record in health work

and should make the State of Florida an excellent official.

Twenty-five years ago this month Dr. McPhaul was serving Robeson County as a member of the Legislature then in session at Raleigh. He took a leading part in promoting health

legislation in that body, which enacted many progressive health measures. He had come to Robeson County from Alabama with his parents when he was a child. He was part-time health officer, or county physician, in Robeson County for several years. In 1916 he became whole-time health officer of that county, where he remained until he resigned early in 1919 to join the staff of the Alabama State Board of Health. Soon after going there he became city health officer of Montgomery,

resigning in about a year to become city health officer of Charlotte, N. C. He held the latter position for about ten years, resigning to take up the Pensacola work.

It will thus be noted that Dr. McPhaul's experience in the field of public health work has been full and complete.

His old colleagues here in North Carolina wish for him a long and successful career as head of the Florida health work.

A Special Study of Immunization in Charlotte

DR. G. L. REA, city health officer of Charlotte, has sent us a brief summary of a special survey made in a well-to-do residential district of Charlotte which should have considerable interest for health officials and practicing physicians all over the State.

The study was carried out under the direction of Dr. Rea by Miss Clara Henderson, a public health nurse of his department.

The report follows:

"STUDY OF IMMUNIZATION IN ELIZABETH DISTRICT

"Purpose:

"To find how the well-to-do regard immunization against diphtheria under one year, and whether or not children are protected at one year.

"Method:

"Names of 47 babies living in Elizabeth District between the ages of six months and one year were selected from the birth registration index file. A public health nurse called at each home.

"Findings:

"Fifteen had moved.

"32 mothers received the nurse cordially and discussed protection against diphtheria.

"10 had been immunized already.

"4 were being given whooping cough serum and would be immunized following its completion.

"5 others had pre-school brothers and sisters who had been immunized and mothers were planning to have the baby given toxoid also.

"5 were interested and would talk to their family physician.

"2 had appointments with pediatricians for next month when it was to be given."

"2 sick children with doctors in attendance said when patients were well they would have it given.

"1 afraid it would have a bad effect on the heart, and three other children had not been allowed to have it, but would speak to her doctor at the nurse's suggestion.

"1 mother waiting until the child was one year old.

"1 interested but had recently heard of a child who had had a severe infection from the treatment. There was another pre-school child in this family who had been immunized, and she promised to talk to her doctor about it as her husband was greatly excited over this report of danger from toxoid."

A Complaint From One Mother Who Lives In a College Town Too

"Gentlemen:

"At the repeated request of my little girl, who is in the second grade at Blank School, I visited the toilet room and, to say the least, I was shocked at the unsanitary condition of this room.

"I am a graduate registered nurse and I know the dangers that lurk in such places, where so many families are represented. And if the help can't use antiseptic solutions, I would suggest that plenty of good soap and water combined with a normal amount of elbow grease would do this place good. And since the State controls the schools I feel that the Board of Health should demand that a program of proper cleaning methods be employed in the schools to protect the health of the children. From my own little girl's health records, I have had little trouble until she started to school. Since then she has had ailments which I can attribute to the unclean condition of the school. A parent of this school told me that she became so nauseated with the foul odors in the commode room she was compelled to hold her nose and seek freedom in fresh air. I am writing this with the feeling that some investigation and improvement will be made.

"Very truly yours,"

Posture Week at Saint Mary's

During the past year we have had all kinds of weeks—from "Eat More Cheese Week" to "Fire Prevention Week." All of these things are good, but the public is a little weary of such designations. One reason is that there have become so many "weekly" observances that there are hardly enough weeks in the year to go around. Every one of these enterprises which has come to our attention should meet

the approval of the public generally. All of them have worthy motives, and the original idea in setting apart a week or a day for special observance of some enterprise was to obtain sufficient publicity about the proposal to center the attention of a large number of people on the subject in the hope that something would be done about it.

A few days ago in a column conducted in the *Raleigh Times* by Miss Anne Whaling, under the title "The Belles of Saint Mary's," Miss Whaling described in a brief paragraph the observance of "Posture Week" at Saint Mary's School in Raleigh. This proposal struck us as being unusual, in that it was an unusual way to observe the very important rules for correct posture. It is natural that in a school for girls the question should be emphasized. The time to teach these things, however, is when the children are small. Efforts cannot begin too early in life.

We started out to quote Miss Whaling's paragraph in the *Raleigh Times* without the intention of writing an editorial ourselves. And we hope other schools are likewise observing "Posture Week." The paragraph from "The Belles of Saint Mary's" follows:

"This is 'Posture Week' at Saint Mary's. Since good posture is necessary to good health a definite stress is placed upon it. Each girl has been given a tag by her team captain and it is her duty to wear the tag at all times. Five Sigma's and five Mu's have been appointed as policemen and they watch the posture of the students at all times. If one is caught sitting or standing incorrectly she is told to put a mark on her tag, and so many marks put her in posture class. If she forgets to wear this tag at any time five marks are given. Each one tries her best to hold herself correctly at all times so as to improve her posture and also not to get marks so that her team may win."



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No. 3



M. J. Rosenau

Famous Authority Now Director of the Department of Public Health in the
School of Medicine at the University of North Carolina

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FREE HEALTH LITERATURE

The State Board of Health publishes monthly THE HEALTH BULLETIN, which will be sent free to any citizen requesting it. The Board also has available for distribution without charge special literature on the following subjects. Ask for any in which you may be interested.

Adenoids and Tonsils	German Measles	Scarlet Fever
Cancer	Health Education	Smallpox
Constipation	Hookworm Disease	Teeth
Chickenpox	Infantile Paralysis	Tuberculosis
Diabetes	Influenza	Tuberculosis Placards
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Eyes	Pellagra	Veneral Diseases
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SPECIAL LITERATURE ON MATERNITY AND INFANCY

The following special literature on the subjects listed below will be sent free to any citizen of the State on request to the State Board of Health, Raleigh, N. C.

Prenatal Care (by Mrs. Max West)	Baby's Daily Time Cards: Under 5 months;
Prenatal Letters (series of nine monthly letters)	5 to 6 months; 7, 8, and 9 months; 10, 11, and 12 months; 1 year to 19 months; 19 months to 2 years.
Minimum Standards of Prenatal Care	Diet List: 9 to 12 months; 12 to 15 months; 15 to 24 months; 2 to 3 years; 3 to 6 years.
Breast Feeding	Instructions for North Carolina Midwives
Infant Care. The Prevention of Infantile Diarrhea	
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New Public Health Department at State University

THE most important development in public health circles in many years for this section of the South is the establishment at Chapel Hill of a department of public health in connection with the School of Medicine, and the selection of Dr. Milton J. Rosenau as its director. This development has been made possible by the co-ordination of the staffs and the facilities of the North Carolina State Board of Health and the schools of medicine and engineering of the University of North Carolina.

The new department, while an integral part of the University School of Medicine with Dr. C. S. Mangum, Dean, will be under the personal direction of Dr. Rosenau. Dr. Rosenau is generally regarded as America's foremost authority on public health. His books on preventive medicine are used everywhere as standard textbooks in all schools of public health. Until his retirement recently from that faculty he had been head of the famous Harvard School of Public Health for many years.

For a long time the officials of the State Board of Health have worked hard to secure the establishment of such a school. The necessity for it has been apparent to all responsible health workers. The chief credit for success in launching the enterprise should go to Dr. Charles S. Mangum, Dean of the University Medical School, and to Dr. Carl V. Reynolds, State Health Officer. Both of these officials have worked hard and cooperated with each other in overcoming all difficulties in the way of the establishment of the new department.

In the opinion of Drs. Mangum and Reynolds the development was in part made possible by the success of the course put on in the school year of 1934 and 1935 at the University under the auspices of the School of Public Administration. The first course put on with the teaching aid of the Schools of Medicine and Engineering of the University and members of the staff of the State Board of Health comprised a course of instruction for physicians in public health administration and extended over a period of twelve weeks. The work was so excellently done that they received recognition from the United States Public Health Service which assigned several of its applicants for post-graduate work to take the second course.

We hope and believe that this enterprise under Dr. Rosenau's direction will expand into one of the most important departments of public health education in the entire country. The need for special training for physicians who want to enter public health work is great. Efficient public health departments, National, State and local in modern conditions of living are an absolute necessity. There are large numbers of young physicians who with proper post-graduate training could make excellent health officers.

The success of the new department at Chapel Hill will go a long way toward establishing an efficient system of public health work on a sound basis throughout the entire southeastern section of the country.

Typhoid Fever and Poliomyelitis (Infantile Paralysis)

ELSEWHERE in this issue of the HEALTH BULLETIN we are publishing two maps. These maps indicate the particular county in North Carolina where a death occurred during the last year from typhoid fever, indicated on one map, and poliomyelitis, or infantile paralysis, indicated on the other map. Each large black spot on the maps indicates one death. On one of the maps the black mark will indicate a death from poliomyelitis and on the other map the black mark will indicate one death from typhoid fever. It will be noted by a study of the maps that typhoid fever cost the lives of 79 people last year. Poliomyelitis, on the other hand, cost the lives of 67 people. During the same period doctors of the State reported 675 cases of poliomyelitis. They reported also 645 cases of typhoid fever. It will be seen therefore that the death rate, according to cases, was greater among the people having typhoid fever than it was among those having poliomyelitis. We are publishing these comparisons because we feel that deaths from typhoid fever are just as final as deaths from poliomyelitis or any other condition.

For a number of years physicians and health officers have known definitely how to prevent typhoid fever. It is easy to prevent, but it requires the cooperation of all the people of the State and the Nation. The causes of typhoid fever are definitely known. Through sanitation and the use of a special vaccine, if carried out on the part of all the people of the country, the disease would be entirely eliminated. Another consideration is that in typhoid fever the complications resulting from a severe attack of this disease, even though the patient re-

covers, are severe, and in many instances last for life. We have in mind as these lines are being written a most prominent lawyer of this State who has had a great deal of trouble with an infected leg and foot for thirty years after a severe case of typhoid fever. We know a woman living in Raleigh who still has trouble from a complication following a case of typhoid fever which occurred thirty-five years ago.

Poliomyelitis is a disease in which little is definitely known about it, in so far as preventive measures are concerned. Numerous vaccines have been tried, all of which at present are in the experimental stage. No one knows the exact and definite specific cause, although some progress is being made along this line. As stated above, the deaths occurring among cases resulting from attacks of poliomyelitis are fewer than in the same number of people having attacks of typhoid fever. The complications, with the exception of a small percentage of cases, are no worse than those of typhoid fever. It is true that a few attacks result in permanent impairment for life in crippling sufficiently to put the patient possibly on crutches for life. It is this spectacular result of a few attacks on a few people and the mystery that still surrounds the attacks which have so horrified people throughout the country that communities and even states become upset when cases are reported, to an extent entirely unjustified by the facts when studying the history of the disease. The 675 cases reported in North Carolina last year with the 67 deaths resulting aroused a thousand times more apprehension on the part of the people than did the 645 people with the 79 deaths resulting from typhoid fever.

We would not, under any circumstances, try to discount the seriousness of a case of poliomyelitis or of the outbreak in a community of that disease; it is sufficient to arouse the parents of children everywhere when cases occur in a community; parents are also justified in undertaking to keep their children out of such communities when the disease is prevalent. We would, however, undertake to impress again, for the millionth time, upon the minds of the people the importance and the dangers of an outbreak of typhoid fever. The control, to its present status, of typhoid fever is one of the most glorious achievements of preventive medicine during the last thirty years. But the disease has not been eliminated. If precautions all along the line should be suspended for one year even, the disease would probably be back in all its devastating fury, and be much more serious to the public at large than an outbreak of poliomyelitis.

One of the potential dangers in typhoid fever is the carrier. That is a

person who has had an attack of the disease, who recovers, but who afterward, sometimes for life, harbor the germs and therefore may infect a susceptible and unprotected person upon contact. Vaccination probably affords the best protection against the carrier.

We are much gratified to know that even though there were more cases of typhoid fever last year than the year before there were fewer deaths last year in the State than ever before, although there should have been no deaths from the disease, and there should be no cases to report. It is possible that as summer approaches again this year there will be an increase in the number of cases of poliomyelitis as well as typhoid fever. We hope, however, that neither of the diseases will be prevalent to the extent of last year, and we surely hope that there will be no outbreak at all this year of poliomyelitis.

Hospital Care

DURING the past year or two in numerous sections of the State hospital care associations have been formed. Many of these organizations are conducted on a legitimate and helpful basis. All of them are organized on a commercial basis and seem to provide the assurance of a limited number of days in each year of hospital care to people who join the associations and who pay a small monthly fee. The idea is that this small fee, paid in by a large group of people, is sufficient to provide hospital care for any of the number who need it during the year—that is, for a limited number of days, of course.

By hospital care is meant a room and a bed, nursing service, operating room fees, anesthesia, drugs, X-ray ex-

aminations, and all the different essentials to a stay in the hospital without any additional charge to the patient. The patient, of course, selects and pays his own physician, and also is privileged to select any hospital which recognizes the association.

Mrs. Mary R. Campbell, of Asheville, who is local secretary of the Hospital Care Association, Incorporated, of that city, is so enthusiastic about the contribution her association has made to community health in the city of Asheville that she has written a poem expressing her sentiments. We quote below:

WISE AND OTHERWISE

There was a man, thoughtless and gay,
Who never looked ahead a day,
But spent his money, every dime,
On food and clothes and a good time.

His wife would worry, for well she
knew,
The time would come when he would
rue
Not saving his money, for that time
when
We go to a hospital, "One out of ten."

But he would say, "We're of the nine,
Who won't be sick, so why repine?
Why spend money, tho the cost be
small,
When we may not be sick at all?"

And then one day, down was he struck;
O, that poor man, such awful luck.
A hospital room was then his lot,
And he knew that money he had it not.

"Had I but joined the Hospital Care,
my mind would now be light as air.
But I wasted my money, so how can
I pay
This hospital bill? I see no way."
But neighbor Jones joined Hospital
Care
And is never troubled by this night-
mare.
He can enjoy a nice vacation,
Protected by the Association.

Winston-Salem Has Enviably Health Record in 1935

DR. R. L. CARLTON, city health officer of Winston-Salem, has kindly supplied us with copies of his report for 1935. There are at least three things in his report for which that city as well as the entire State should be grateful. First, the city enjoyed the lowest general death rate ever recorded; second, the lowest infant mortality rate, and third, the lowest tuberculosis death rate by a good many points. The infant deaths, that is, those under one year of age, numbered 127 in 1935. In 1934 there were 157 deaths in the same age group. The foregoing number of deaths give the city a rate of 75 per thousand live births for the year, as compared with a rate of 97 per thousand live births for the previous year. The city experienced no epidemics from any disease, and there were three thousand fewer cases of communicable diseases than were present the previous year. There were marked decreases in deaths from such preventable diseases as tuberculosis, diphtheria, measles, scarlet fever, and the diarrheas of infancy. On the debit side of the record was an increase in the number of stillbirths, deaths from pellagra, and maternal deaths. On the whole, however, the

record is one of which the city should be proud.

For several years the health department in Winston-Salem has been carrying on an excellent program in the schools. School health supervision in the city means exactly what it says. There is intensive work done throughout the school year by a competent staff of physicians and nurses engaged in the work. We feel sure that the following summary of school health work done in the city schools by the health department, quoted from the *Winston-Salem Journal*, will be of interest to all of our readers.

28,214 Children Examined in Schools Here Last Year

"Health officials reported here yesterday that 28,214 routine and special examinations of children were made in 1935 in efforts to find, control and prevent communicable diseases.

"The examinations were made by physicians and nurses of the Health Department, who made 360 and 1,235 visits respectively to schools during the year in connection with the city's program.

"Thirty-six children were given complete examinations. Nearly 100 who

were to enter strenuous athletic competition were carefully looked over while 2,238 children were given various forms of first aid.

"Physicians vaccinated 877 school children and 432 pre-school children during the year. Examinations were made of 542 children in the pre-school clinic.

"The Schick test reportedly was given to 1,380 children to determine diphtheria susceptibility. Toxoid was given to 384 positive reactors.

"The Matoux (tuberculosis) test was administered to 382 students, most of them seniors in the high schools, followed by physical examinations and x-rays of the positive reactors.

"There were 699 students excluded from school for various reasons during the year, officials stated. The majority, 405, were sent home because of high temperature and general ill conditions of health.

"One hundred and two students were excluded from school because of skin conditions, most of which was reported as scabies and pediculosis.

"Eye trouble was responsible for 18 exclusions, throat conditions for 11; exposure to communicable diseases, 124; ear conditions, 5; and miscellaneous conditions, 26.

"Health authorities pronounced the small number of exclusions to 'indicate a good health year' for the more than 15,000 children in the city schools.

"The school health work was carried on as only a part of the duties of seven nurses and one physician, who had many additional duties.

"The staff of health workers for our little army of school children needs to be brought up to its former strength of considerably more workers than now available,' health authorities stated in comment on the annual report."

More Facts About Milk

By JOHN ANDREWS, *Junior Engineer, State Board of Health*

(This presentation is a dialogue between John Andrews, an engineer with the State Board of Health, and Mrs. Walter Parsons. They have just met on the street. It is suitable for a radio broadcast or for a play at school.—EDITOR.)

Andrews: Good morning, Mrs. Parsons. I hope you had a very pleasant New Year's day and I hope that in 1936 your cup of happiness will be "filled to overflowing."

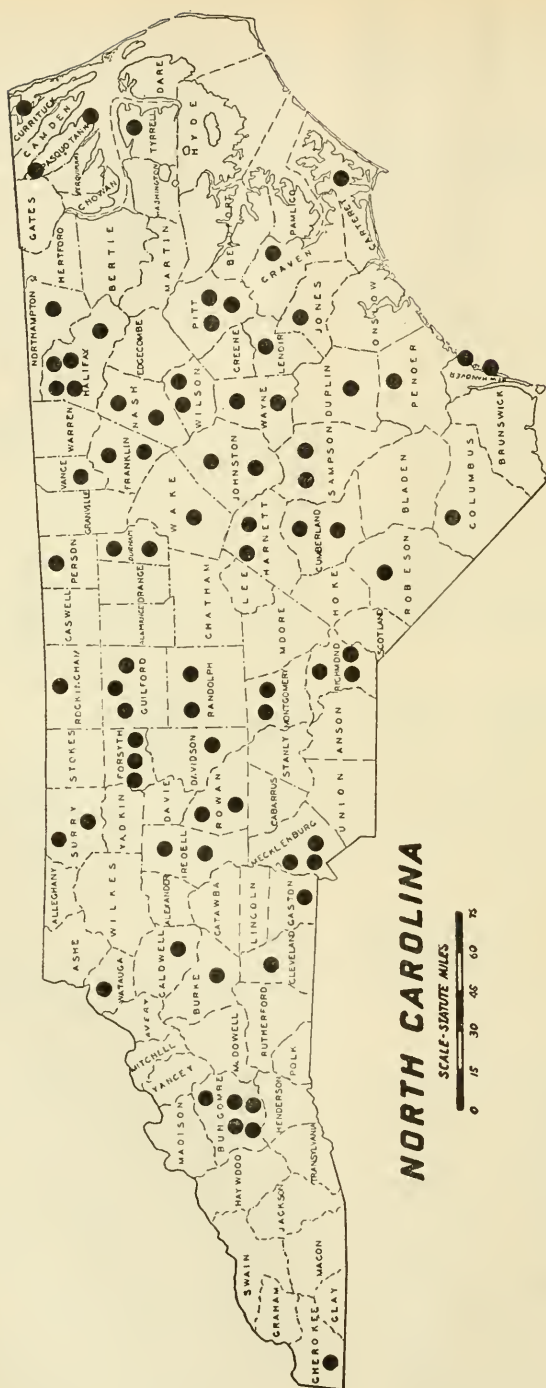
Parsons: The same to you! I had a very pleasant New Year's day. I spent the whole day at home by the fire writing letters and reading. This wintry weather certainly keeps one close to the family hearthstone. I heard some commentator remark recently that people have stayed at home more this past Christmas than in a long, long time, and I think it has been very beneficial to many families to have this opportunity to be together. I suppose many people were glad of this chance

to "get acquainted" with their families again.

Andrews: You are very philosophical today, Mrs. Parsons. I see the stay at home program has had its effect on you, too! But I know that we all have enjoyed the warmth and comfort of our homes and have avoided, as much as possible going out into the cold and snow. But some people have not been able to stay inside by their fires during the cold weather. I think we should express our appreciation to all the people who have braved the elements to bring us each day the necessities of life. I mean the delivery people, the mail carrier, the paper carrier, the milkman and all the rest.

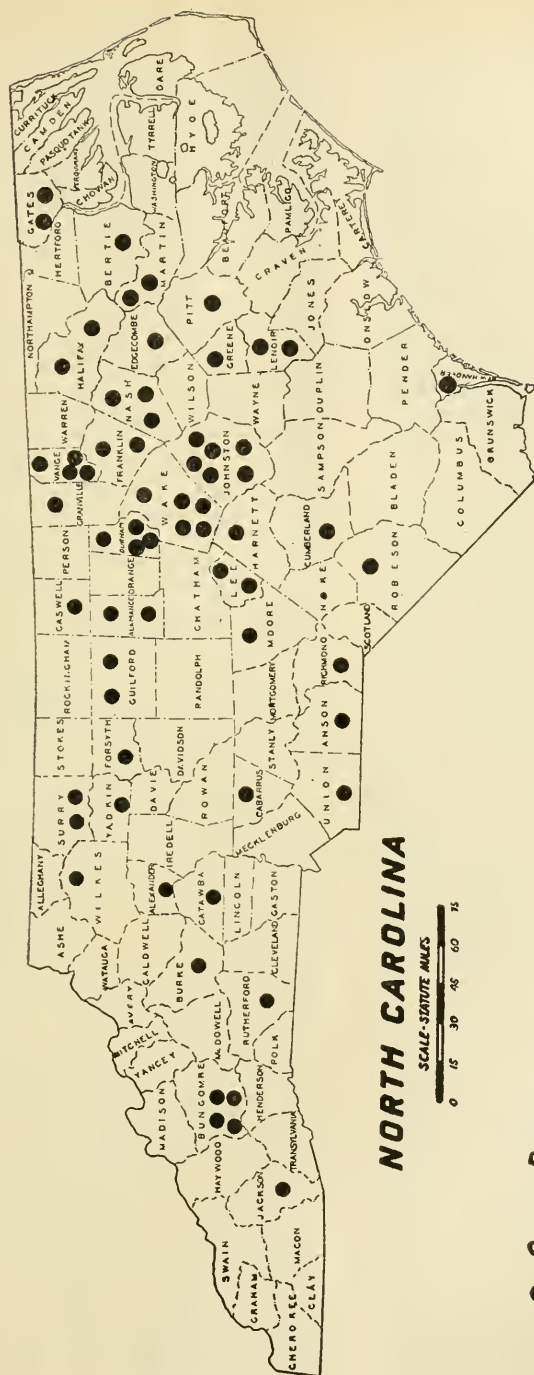
Parsons: You are right. We have grown so accustomed to many things which are really luxuries that we expect them without thinking about the

(Continued on Page 10)



● ONE DEATH

DEATHS FROM TYPHOID FEVER - 1935



● ONE DEATH

DEATHS FROM POLIOMYELITIS - 1935

MORE FACTS ABOUT MILK

(Continued from Page 7)

difficulties and discomforts that frequently beset the people who make them possible. I don't mean to change abruptly the subject of our conversation, but when you mentioned the milkman you reminded me of several more questions I want to ask you. I remember that some time ago we discussed the great food value of milk, the absolute necessity for sanitation and cleanliness in every step of milk production, and the responsibility of the public health organizations to make sure that milk offered for sale is safe for human consumption. But at that time we said very little about the pasteurization of milk. I know that the State Board of Health advocates the use of pasteurized milk.

Andrews: Yes indeed! The State Board of Health recommends that people use milk which has been properly pasteurized. The resulting product is as safe for human consumption as we know how to make it. And we don't regard pasteurization as a "cure-all" or as a means of producing a clean, wholesome, safe milk from an inferior raw milk. The State Board of Health urges the production of raw milk which is as clean, wholesome and safe as it is possible to obtain with modern, sanitary methods, and the pasteurization of this milk, in a plant equipped and constructed in such a manner that the milk can be properly pasteurized, cooled and bottled, and be subjected to no re-contamination. Properly pasteurized milk is the safest milk we know how to produce today.

Parsons: I always drink pasteurized milk, but what of the people who can't drink it?

Andrews: Do you mean people who live in a town in which pasteurized milk is not available?

Parsons: No, I mean people who can't drink milk which has been pasteurized—people who find its flavor objectionable. I especially want to know why some people say that pasteurized milk has a cooked taste whereas others don't notice any such flavor. I drink pasteurized milk and I don't notice a cooked flavor.

Andrews: The answer to that question is a long story. Today, properly pasteurized milk of good quality does not taste different from the raw product. But years ago when the pasteurization of milk was first begun, equipment was not so efficient, and the

methods of controlling the process were not so accurate as they are today. Undoubtedly quite a lot of the early pasteurized milk did have a cooked taste. People learned this and it became a common belief that pasteurized milk naturally had a different flavor, and that if milk was pasteurized it just must have this distinctive flavor. This belief still lingers in the minds of many people, even though a cooked flavor is not now characteristic of pasteurized milk.

There is another phase to the problem too. It is true that modern equipment and methods have eliminated such flavors when the milk in its raw state is clean and wholesome. However, even with modern equipment and methods, objectionable flavors may develop when an unclean raw milk is treated. Personally, I regard this tendency for the appearance of such flavors in unclean pasteurized milk to be very helpful to the efforts of the health departments to improve the quality of the milk used in pasteurization, since no plant can successfully sell milk which the customers find unpalatable.

Numerous tests have shown that the proper pasteurizing of clean wholesome raw milk causes no perceptible change in its flavor. Further evidence of the truth of this statement is the fact that we now have practically no complaints about such flavors.

You said, Mrs. Parsons, that some of your friends cannot drink pasteurized milk because of its taste. I wonder how many people you have heard raise this objection to pasteurized milk within the last year or two.

Parsons: Well, I don't know. Now that I think of it, probably only one or two people have mentioned it, although I must admit that now I can't recall who they were.

I believe you're right, now that I think of it. I suppose I have just gone on believing that pasteurized milk tastes different, in spite of the evidence of my "taster" which shows that it does not.

Andrews: The next time you hear anyone say that pasteurized milk has a special flavor I wish you would pass on the things we have just said, and ask him to make a careful test, himself.

Parsons: I certainly will. The last time we talked you spoke of the fact that the Hebrews, Mongols, Vikings, and others had a high regard for the food value of milk. Now I know that the ancient people had no large dairy

Industry such as we have now in the United States. Most families kept a cow or two and probably sold a little milk to the neighbors. This condition existed, I suppose for thousands of years. Then a few years ago, the present dairy industry sprang up within a few decades. I know, of course, that most industries have had a tremendous growth in the past century owing to the inventions, and the like, but I want to know some of the factors applying particularly to the dairy industry.

Andrews: The development of the modern dairy industry was largely due to several inventions, and may be said to have begun about the middle of the nineteenth century. More important than any invention, of course, was the development of chemistry and bacteriology, which enabled us to discover the character of milk and its properties and which revealed the tremendous importance of the bacteria, thus leading to knowledge of the reasons for the souring of milk and the possibilities of transmitting disease by unclean milk. Of the inventions, artificial refrigeration, the cream separator and the Babcock test are of major importance.

The development of scientific breeding of cattle and of scientific feeding have enabled the milk production per cow to be doubled. The economic value of this development is obvious.

Without artificial refrigeration, it would be impossible for a large portion of the people of the United States to obtain milk which is safe for human consumption. Proper cooling inhibits the growth of bacteria, those which cause milk to sour, and those which cause disease in man. In many parts of Europe and South America artificial refrigeration is lacking and the housewives boil the milk to keep it from souring. It is interesting to notice that there is practically no milk-borne disease in those countries in which the milk is boiled. This fact shows the effectiveness of boiling, and indicates that we could obtain the same results in this country by pasteurizing all milk.

Parsons: Just what is the difference between boiling and pasteurizing?

Andrews: In boiling, the milk is heated to a temperature of about 212 degrees Fahrenheit. In pasteurization, the milk is usually heated to a temperature of only 142 degrees Fahrenheit and held at that temperature for 30 minutes. Another method of pasteurization involves heating to a tem-

perature of 160 degrees Fahrenheit and holding for 15 seconds.

Parsons: Is pasteurization as effective as boiling?

Andrews: From the public health point of view, pasteurization is equal to boiling, since it destroys the germs which cause disease in man.

Parsons: I suppose, then, it is the policy of public health departments to promote the consumption of pasteurized milk, and to discourage the use of raw milk. I wonder whether or not that is the proper attitude. Milk is such a good food—I believe you call it “the most nearly perfect food”—that I should think you would encourage the use of any milk, whether pasteurized or raw, and whether clean or unclean.

Andrews: You are partly right about our policy, but you are partly wrong, also. We do encourage the consumption of pasteurized milk, but we do not discourage the use of raw milk. We urge people to drink plenty of clean, wholesome milk, and point out the fact that in order for milk to be made as safe as we know how to make it, it must be properly pasteurized. We do use all methods at our disposal to promote and increase the use of pasteurized milk. However, we cannot recommend the use of any milk which is not obtained from clean, healthy cows, and handled by clean, healthy people in clean equipment, and in clean surroundings.

Parsons: Just what do you mean by clean? Naturally I know what cleanliness is, but what means do you use in judging which dairies produce clean milk and which produce unclean milk?

Andrews: By inspecting these dairies at frequent intervals, and seeing that they meet the requirements of the United States Public Health Service Milk Ordinance.

Parsons: Oh, of course, that's it! I remember now. That is a “model” milk ordinance prepared by the U. S. Public Health Service and recommended for adoption by the individual towns and counties, is it not?

Andrews: That's right. This ordinance has been very carefully prepared, taking advantage of the advice of many authorities, and is, we believe, the best existing means of securing proper sanitary conditions at our dairies and pasteurizing plants. The ordinance provides for the necessary inspection service and laboratory examinations, and it goes into all the necessary detail of setting forth the minimum require-

ments for sanitation in the handling and processing of milk. Many dairymen do much more than is necessary to meet the minimum requirements, and we naturally encourage this tendency.

The U. S. Public Health Service Milk Ordinance has already been adopted by more than 100 municipalities in North Carolina and by more than 600 communities in the United States.

Parsons: How is the public informed of the condition of the dairies?

Andrews: The dairies and plants are graded several times a year on the basis of compliance with the ordinance. The sale of inferior grades of milk is prohibited, and the grades of all dairies are published in the local newspapers.

At least once every two years a Federal survey is made, and the milk supply of each town in given a percentage rating. The names of all towns having a rating of over 90 per cent are published by the U. S. Public Health Service in its Public Health Reports. That organization hopes that as the ordinance is adopted and properly enforced by more and more towns throughout the nation, their tabulations of the milk ratings of cities will in time become a guide which tourists and travellers may use to find out at which

towns on their routes they may expect to secure clean, safe milk.

Parsons: Don't all North Carolina restaurants and cafes serve Grade A Milk?

Andrews: All first class restaurants and cafes must serve the highest grade of milk available. In most portions of the State Grade A Pasteurized or Grade A Raw Milk is available.

Parsons: Is it not also true that cafes must serve milk in its original container, with the cap still in place, so that customers may see on the cap the grade of the product?

Andrews: That is right.

Parsons: That seems a very reasonable requirement. If I go into a restaurant and buy milk, I am certainly entitled to know what kind of milk I receive.

Andrews: The better restaurants recognize this fact and serve milk that way. If anyone should neglect this simple rule, I suggest that you call it to his attention.

Parsons: I most certainly will. But now I simply must be going, I'm late for an appointment already. Thanks so much for the information, and I'm going to think up some more questions to ask you the next time. Good bye.

Andrews: Good bye, Mrs. Parsons.

Charlotte Maternity Clinic Report for 1935

WE are indebted to Dr. W. Z. Bradford of Charlotte for a report of the work of the maternity clinic conducted there by the Health Department.

The report presents the summary of the work done during the year 1935. For the especial benefit of other cities where the local health departments and physicians may be carrying on such work or planning to do so, we are publishing the entire summary as submitted. It will be noted that both the maternity as well as neonatal death rate was gratifyingly low. The report follows:

Prenatal Service:

New Patients	676
White Patients	124
City White	70
County White	54
Colored Patients	552
City Colored	385
County Colored	167
Visits to Clinic	3217
White Patients	440
City White	268
County White	172
Colored Patients	2777
City Colored	2205
County Colored	572

Syphilis:

Wassermans taken	676
Positive Wassermans (26%)	176
Treatments given	745
Luetic Patients del.	143
Living Children	123
Stillbirths	11
Miscarriages	9

Delivery Service:

Number of Deliveries	552
White Patients	112
County White	38
City White	74

Colored Patients	440
County Colored	120
City Colored	320
Home Deliveries	468
Hospital Deliveries	84
Patients Receiving Prenatal Care	497
Patients Not Receiving Prenatal Care	55
Visits by Students	3421
Spontaneous Deliveries	530
Operative Deliveries	22
Version and Extraction	1
Mid-Pelvic Forceps	8
Low Forceps	5
Cesarean Section	7
Porro-Cesarean Section	1
Mortality:	
Miscarriages	14
Etiology:	
Syphilis	9
Chronic Nephritis	1
Unknown	4
Stillbirths (3.62%)	20
Etiology:	
Syphilis	11
Toxemia	2

Premature separation of Placenta	2
Prolapsed Cord	1
Unknown	4
Neonatal Deaths	9
Etiology:	
Hydrocephalus	1
Premature	4
Spina Bifida	1
Syphilis	1
Unknown	2
Maternal Deaths	3
Etiology:	
Utero Placental Apoplexy..	1
Pelvic Peritonitis and Pneumonia	1
Tuberculous Peritonitis, death 3 months Post- Partum	1
Toxemias	33
Nephritic	5
Eclamptic	1
Pre-Eclamptic	13
Hypertension	11
Chronic Nephritic	2
Diabetic	1

On Psychiatric Mediaevalism

By JAMES K. HALL, M.D.

In Southern Medicine and Surgery

OUT in Saint Louis the other day, at the meeting of the Southern Medical Association, Dr. W. L. Treadway, Assistant Surgeon General, Division of Mental Hygiene, United States Public Health Service, Washington, read a paper before the Section on Neurology and Psychiatry. He discussed: The Significance and Content of Mental Health Administration. The paper should be read by every physician in the country and by all intelligent laymen. I remember that Dr. Treadway remarked that psychiatry, as a public health problem, is being dealt with about as stupidly as public health folks dealt with physical diseases eighty years ago. And he added that there is no hope of the situation's being any better so long as the management of mental hospitals is controlled

by politicians and by other laymen who know nothing about medicine.

How can progress ever come out of ignorance? Most State hospitals are managed by boards of directors composed of laymen—politicians and so-called business men. The responsibility of selecting the medical superintendents of such hospitals is given to such lay boards. And not infrequently they elect as superintendent a physician who knows no more about psychiatry than the family doctor knows, and who knows nothing at all about hospital administration. Here in Virginia the five State hospitals and several allied institutions function in a general way under the auspices of the State Board of Public Welfare. But that is an organization of laymen, untrained in psychiatry and inexperienced

in hospital management. Per contra, the State Board of Health is composed largely of physicians, and the President of the Board is a physician. Yet no intelligent person can believe that the problems with which the Boards of Directors of the State Hospitals deal are smaller or less complex than those with which the State Board of Health deals. Why are those conditions relating to mental sickness handled by laymen, and those caused by disease of the body cared for by physicians? Who knows?

Time was, of course, and not so long ago, when the medical colleges gave no instruction in the diagnosis and the treatment of mental sickness. But that time is passed. All medical schools now give some instruction in psychiatry, and the younger physicians know something about the importance of mental hygiene. I am wondering how much longer the younger doctors are going to be willing for laymen to have charge of every State's biggest and most difficult medical problem—mental sickness.

Dr. Farrell and Miss Beam Complete Work in County

County Health Board Expresses Appreciation for Services Rendered School Children by State Dentist and Nurse; Urges Follow-Up Work on Part of Parents.

MONDAY was a regular meeting day for the county board of health, at which time gratifying progress in the county health became known, but also some serious points of weakness.

J. F. Allen is chairman; Mrs. H. J. Dockery, secretary, and Dr. B. J. McGoogan, of Morven; Dr. J. F. Williamson, Dr. C. I. Allen, Mayor L. D. Rivers are the remaining members. All were present except the last two named. Dr. J. H. Bennett is county health officer. The board meets three times a year.

Improvements deserving the public notice at this time include the splendid work done by Miss Cora Beam, State nurse, and Dr. W. I. Farrell, State dentist, among the school children of the county.

Dentist's Work

Dr. Farrell completed his work here just this week for the time being. He examined and treated the teeth of 1,205 children, for whom 4,389 separate operations were done besides cleaning.

That is, the teeth of each of the 1,205 children were cleaned, then fillings, removals or other operations were done as necessary to get the mouth in good shape. And the figures mean that each child had to have almost four operations, which seems to spell a bad story of oral neglect! But now we have at least 1,205 children in the county whose teeth should not be any hindrance to their health for a long while.

At private rates, Dr. Farrell did \$5,594 worth of dental work. It's \$4,991.50 at charity rates!

The schools were enthusiastic over Dr. Farrell's work. All the principals want it again next year.

Board Appreciates

The board expressed special appreciation of Dr. Farrell's excellent work for the school children of the county.

An interesting incidental observation is that about 600 of those whose teeth had to be treated were repeaters in their school work—that is, half of those

backward dentally were found to be backward mentally, which at least suggests a definite relation between physical and mental health.

Nurse Reports

Miss Cora Beam completed her work in the examination of physical defects other than teeth just before Christmas. She had been working here since September. In that time she examined 5,177 children and found 3,222 with some form of physical defect—that's about 62 per cent. Miss Beam called attention to the fact that only a small number of the children were vaccinated against smallpox, as the law requires.

The local board went on record with a recommendation that the families of these children with physical defects should follow up the nurse's reports with the needed corrections, removing the tonsils or adenoids, or getting glasses, etc., as may be necessary. Where parents are unable to do this, local organizations, primarily the Parent-Teachers associations, will be urged to do what they can to help.

The board again considered a whole-time health department for Anson and expressed approval of such an important move for our county welfare.—*Anson News*.

Cabarrus School Children Like Their Dentist

By RICHARD C. MONTAGUE

I journeyed out to Hartsell school yesterday. Not that I particularly wanted to see the school itself, but I had heard many interesting things about the work one Dr. Marcus R. Smith, school dentist for Cabarrus

County from the Division of Oral Hygiene of the State Board of Health, was doing and being of a curious nature wanted to look in on the dental clinic program while in progress.

This is the fourth year that the clinic has been held and the third

It is quite interesting, this method used to teach the children oral hygiene. Dr. Smith, although performing some actual work on the teeth, stresses mostly the educational angle. He does this by demonstration.

Some of the children have never been to a dentist. It is necessary to acquaint them with one—and make it pleasant. Stories from the outside so often have made it sound rather horrible and painful.

Dr. Smith has his models—both of good and bad mouths—for the demonstrations and his examples keep the children in rapt attention. Stories are used to illustrate the benefit of nourishing vegetables on the teeth and the harm caused by sweets.

The dentist gains the confidence of these children. He takes them right into his friendship—they become buddies. It is always:

"Let's see what your teeth show today, Pee-Wee,"—or "Red," "Tubs" or "Shorty."

The children like it. They are not afraid to have him treat their mouths.

It is impossible, however, to treat all the children needing work done, so Dr.



MR. MONTAGUE

year Dr. Smith has been conducting the work. It is the first year, however, that I have been here, therefore the first occasion offered for me to view the work.

Dr. Smith has spent two weeks in the Hartsell school and now moves on around the circuit. His entire clinic will take 24 more weeks.



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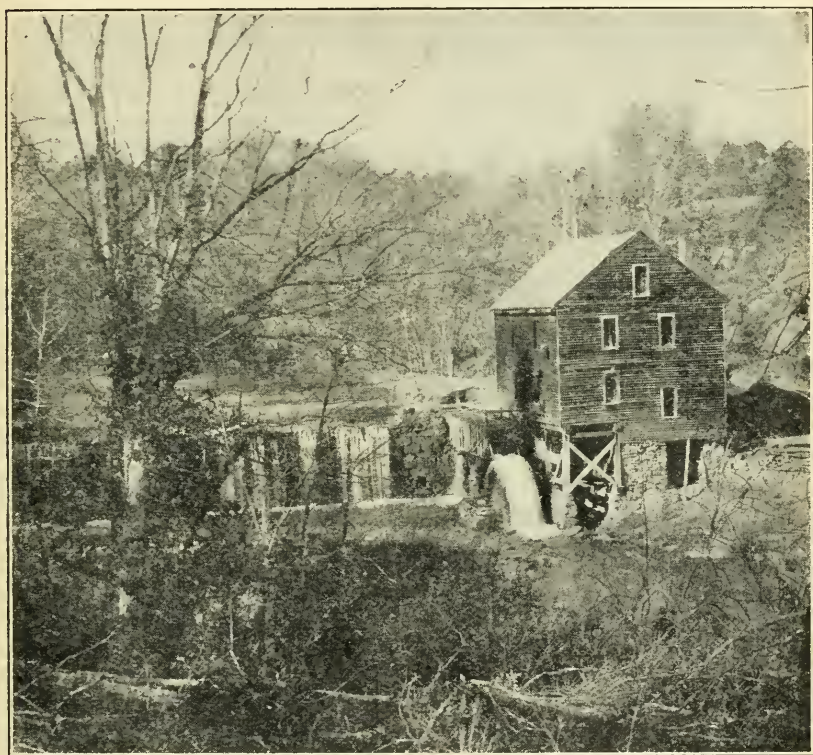
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OLD COMPANY MILL NEAR CARY

The old water mill shown above was once owned by the father of Walter Hines Page. It is now the property of the Boy Scouts.

Dr. Edward J. Wood always contended that when the people consumed corn bread and wheat flour fresh from those old water mills, fruit, vegetables and meats of their own production, pellagra was unknown in North Carolina.

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FREE HEALTH LITERATURE

The State Board of Health publishes monthly THE HEALTH BULLETIN, which will be sent free to any citizen requesting it. The Board also has available for distribution without charge special literature on the following subjects. Ask for any in which you may be interested.

Adenoids and Tonsils
 Cancer
 Constipation
 Chickenpox
 Diabetes
 Diphtheria
 Don't Spit Placards
 Eyes
 Flies
 Fly Placards

German Measles
 Health Education
 Hookworm Disease
 Infantile Paralysis
 Influenza
 Malaria
 Measles
 Pellagra
 Residential Sewage
 Disposal Plants
 Sanitary Privies

Scarlet Fever
 Smallpox
 Teeth
 Tuberculosis
 Tuberculosis Placards
 Typhoid Fever
 Typhoid Placards
 Venereal Diseases
 Water Supplies
 Whooping Cough

SPECIAL LITERATURE ON MATERNITY AND INFANCY

The following special literature on the subjects listed below will be sent free to any citizen of the State on request to the State Board of Health, Raleigh, N. C.

Prenatal Care (by Mrs. Max West)
 Prenatal Letters (series of nine monthly letters)
 Minimum Standards of Prenatal Care
 Breast Feeding
 Infant Care. The Prevention of
 Infantile Diarrhea
 Table of Heights and Weights

Baby's Daily Time Cards: Under 5 months;
 5 to 6 months; 7, 8, and 9 months; 10,
 11, and 12 months; 1 year to 19 months;
 19 months to 2 years.
 Diet List: 9 to 12 months; 12 to 15
 months; 15 to 24 months; 2 to 3
 years; 3 to 6 years.
 Instructions for North Carolina Midwives

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THE Health Bulletin

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Notes and Comment

By THE EDITOR

WE have repeatedly criticised in these columns various schools about over the State for the vicious habit of selling candy and indigestible cakes and such mess to the school children. It seems, however, that few have paid any attention to us, and that we have done no good, if we are to judge by the repeated reports from our nurses now in the field complaining about the underweight and lack of nourishment they find among the school children where such stuff is sold. It seems that some of the schools themselves sell it in connection with the so-called cafeteria service, or in place of such service.

A recent report from one of our nurses, who is, at present, working in a large and wealthy county, has the following complaint:

"This week I have worked in _____ school. I think that they have a very nice school and a fine system throughout the school with the exception of a store in the building in which they sell so much candy. I can see now why they have so many children underweight and malnourished. I did my best to get them to sell fruit instead. The principal uses the argument that the children are going to buy candy anyhow and the school had just as well sell it and make the profit because if the school did not sell it, the children would go to a store nearby and buy it anyhow. Then they would be subject to the danger of being run over by cars as they crossed the road to the store. I think the children could be punished for leaving the school grounds for any such purpose, and that would stop that. It seems to

me that the chief motive is that there is more profit in selling the candy, it is easier to handle, there is no loss by decay, and no wastage in that respect. but think how much the children suffer in so many ways by eating this cheap candy instead of the proper nourishing food that they should have in the middle of the day."

The foregoing is simply a sample of the complaints our experienced school nurses have made to us for many years in their weekly reports coming from the various counties. These nurses, when they commenced their work sixteen years ago, found very few, if any, school cafeterias in the State. They themselves helped to carry on the agitation for what we then termed "hot school lunches" for the children.

Thousands of the children over the State today have the benefit of well-prepared school lunches, served in cafeteria style, composing the kind of food children ought to have, such as soups, vegetables, fruit, and milk—the principal food served in such cafeterias. There are, however, a large number of children yet left exposed to the promiscuous sale of cheap candy, messy cakes, and other indigestible and damaging substances. As anyone with any sense knows, a young child, with a nickel for lunch, if allowed the choice of purchasing either five cents worth of candy, or five cents worth of sweet milk or hot soup, will, every time, choose the candy. The granting of such a choice is an injustice to the children. It is unfair to them and to their par-

ents for the school system to be guilty of subjecting them to any such temptation.

The State Board of Health would suggest that wherever such practice as above described exists that it be discontinued at once.

* * *

WE hate the role of a kill-joy or critic because nobody in the world, not even a baseball umpire, is hated so consistently as a critic; but it is necessary for some things to be said once in a while—in a constructive way, of course—which might eventually bring about the elimination of certain habits that are undesirable.

Today, while we are buzzing around as a gadfly, we want to urge the people in charge of the school system and the parent-teacher associations to be scrupulously careful in accepting any kind of offer through which they may be able to make a little money. One of our nurses was horrified last spring at a largely attended parent-teacher meeting in a county seat town. They put on that afternoon a kind of special health program. The nurse had been invited to talk, and did. The children put on a little health play, which was good, and a brief report was made by the nurse and others of the work that had been done for the health of the children in the schools. The meeting was then climaxed by the appearance on the platform of the wife of one of the most prominent citizens in town, giving a report of how much money they had received, made by selling one of the most detestable purgative drugs now on the market, flying wide and handsome under a fancy name. We will not advertise the stuff by calling the name, except to say that it is horse medicine which generally sells for about a dime a pound, but put up in a pretty package under a disguised name it sells for \$1.50 a pound.

This stuff is dangerous to use in excess over a long period. The fact is, we have reports of at least one death in which prolapse of the bowel in an elderly person first occurred, leading on to a hopeless condition which was ended by death. And in the second place, the exploitation of such drugs has no place in a parent-teacher program or in a school curriculum. We would advise folks to stick to soap coupons—no matter what they may do to clothes, they will not upset permanently the digestive system of the members of the family—or to magazine subscriptions or some other form of gentle graft. It is hopeless to try to educate people to the dangers and the foolishness surrounding the patent medicine industry, when the school system leads off and teaches the children in their most formative years that all such stuff is respectable and legitimate business.

In reporting the incident the nurse takes a crack at many schools which have been teaching sanitation "from a book" for years in many of the schools, white and colored, where there is none practiced whatever. In this connection we repeat again what we have already published a time or two in the HEALTH BULLETIN—the occasion when the late Charles L. Coon, one of the great school men of North Carolina, who was superintendent of the Wilson city and county schools for so long, walked into a grade room one morning and found the teacher and the children all busily engaged studying hygiene and sanitation in "the book." Mr. Coon glanced around the room and saw that the broom had not been used in some time. He noted the dirt piled in the corners of the room, the scraps of paper and the general disorder and dirty condition. Without a word, he took the book from the teacher, walked around the room, gathered up all the copies of "physiology and hygiene," took them in his arms, and at the door he said, "We

will now study practical physiology and hygiene and sanitation for the next hour. Go get the broom and go get a bucket of water and a mop, and get a duster, and let us see if this room cannot be cleaned up and a little practical sanitation taught."

To illustrate further, one nurse reported working in a school up in a mountain county last winter, a large school with no sanitary or toilet facilities of any kind available to teachers or pupils on the school ground, and yet they were all rearing and holding mass meetings to petition the Washington people to lend them five thousand dollars to build a gymnasium.

The times or something is badly out of joint when such things happen. It may be a reflection on the State Board of Health and its Health Education Department, and probably is, although the Board has been doing its best for a long number of years to keep constantly before the people of the State the needs for practical sanitation and for the health care of the children in the schools. It feels that it has done its best with the means at its command, but at the same time it feels somewhat discouraged to know that sanitation is yet an unknown quantity to so many people in the State.

To be fair, we present the other side of the picture, which is encouraging. That is, during the past twenty years there has been a marvelous improvement in the sanitary facilities in many schools of the State, and the rank and file of the teaching profession now realize the necessity for health work in the schools and joyfully welcome the representatives of the Board of Health wherever and whenever they appear. Our criticism is not directed at the teachers, who bear the brunt of the work, but toward the school authorities and now and then a principal who has no interest in these things and, most of all, against the people of such communities who generally have what

they want in the way of improved facilities for their children.

After all, it is a matter of attitude and ideals. Sometime ago an old lawyer who had been mayor of his town and had practically run its affairs for a long time was arguing against the installation of a public water supply. He stated that he had been brought up in a basin, and had got along very well. He might have stated that his ancestors, had he gone back far enough, used a wooden plow, and when the corn was made, carried it to the over-shot water mill, strung across the horse's back, with a rock in one end of the bag to balance the corn in the other end, not having sense enough to divide the corn into two parts, and so to carry twice as much at a load as when using the rock ballast.

All of these things are problems to be settled by the right kind of education; hence our lecture at this time.

The moral of the foregoing is that we hope this year more will be done for the protection of the school child's health and the advancement of personal hygiene and sanitation than has ever been accomplished in one year before in this State.

* * *

SINCE the above items were written we have received some additional information which constitutes more or less interesting comments on our foregoing editorials. We will present the best first. The superintendent of Hyde County has written us, sending along a copy of a letter he had written to the head of a local school prohibiting the sale of candy in the school building or on the school grounds by the school system itself or by any representative. He went on to insist that the midday lunch should be a nourishing, well-prepared lunch which would be good for the children, and not be harmful. Such action as Mr. Gallop, the superintendent in Hyde County has taken

should be highly commended, and his example should be followed by all the school officials throughout the length and breadth of North Carolina.

The other information which we herewith pass along is not so encouraging. In fact, it is badly discouraging, but it has no direct relation to the schools one way or another, except in so far as the schools may be charged with failure to educate the children about the dangers inherent in the promiscuous sale and consumption of the most disreputable of so-called patent medicines. Dr. Floyd Johnson, of Columbus County, recently sent us a copy of a local newspaper, published at Whiteville, in which appeared a large display advertisement from a medicine concern having headquarters in South Carolina. The name of this concern we will omit, but it has the same name of a great institution at present on the lips of most of the people in North Carolina, as well as in South Carolina, very frequently. In large type, at the beginning, this advertisement says: "If you are suffering from any of these diseases or conditions, we have the best known medicine treatment that will relieve, get you well and cure quickly in 80 per cent cases and many 100 per cent." They then list in the advertisement in this reputable weekly paper fifty-seven diseases which they promise cures in from "80 to 100 per cent." These diseases range from appendicitis to varicose veins. The list of these 80 to 100 per cent cures includes paralysis, no matter from what cause, syphilis, pneumonia, arthritis, diabetes, and so on.

It does seem that people who are intelligent enough to read a newspaper would know that such an advertisement was false from beginning to end. The worthless drugs sold under such a promise not only do immense damage to the patient's health, but cause an irreparable waste of time. Imagine what might happen to a person suffer-

ing, say, from an acute attack of appendicitis if that person wasted valuable time experimenting with such worthless remedies as are made up and sold under the sacred name of the drug trade business. It would seem again, after reading such an advertisement, that the first thought which would come to an intelligent person would be the need for a house-cleaning in the business world itself. Now and then we hear an orator get up in front of the radio microphone or on a rostrum to bleat away about the necessity for having a business man as governor or sheriff, or whatever it happens to be. As long as business, so-called, tolerates and encourages such methods, and as long as editors prostitute their privilege in running such advertisements, we pray to be delivered from a business administration of any kind.

* * *

AT the time Doctor Johnson sent us the foregoing clipping, a friend from a small village far up in the Smoky Mountains wrote us as follows: "I am enclosing a label taken from a bottle of medicine being sold by a man going through the country gathering up the ill-to-be spared money of these gullible people, and, where there is no money, taking chickens, etc. The label speaks for itself." We might as well quote from the article right here: "Herb Tonic, recommended for high and low blood pressure, rheumatism, kidney, bladder, liver, and stomach troubles, including pellagra, nerves, indigestion and constipation."

Quoting further from our correspondent's letter: "Of those right around me, one has bought it for rheumatism, two for 'nerves,' one for pellagra, and one for stomach trouble, another for liver trouble (his diagnosis). All tell with such confidence when remonstrated with, 'But he guaranteed it!' We are hoping you can do something about this, I am confident, very harm-

ful imposition. Two of this group paid him five dollars each for a 'whole treatment.' Those reported are people just at hand who have voluntarily reported, with pride. I fear it has been the same all around this community, and no one knows how many more."

Our friend probably expressed the feeling of a majority of the people who buy such worthless stuff and expect it to help them of various and sundry ailments, in the expression "he guaranteed it." Very few people stop and consider that a guarantee is worth no more and no less than the reliability of the individual or company making the guarantee. After years in the business of the study and practice of medicine and mingling with our fellow humans in their joys and their distress, in sickness and in health, we have about reached the conclusion that a rather large percentage of human beings immensely enjoy being humbugged. If they do not, why do they keep on patronizing the charlatans?

* * *

WITH the sunshine and showers and blossoms of April affording definite evidence that the winter is behind us, and a winter which will long be remembered for its extreme weather and the damage to our public road system, we desire to call attention to one feature which has not been emphasized elsewhere. It is the great suffering that has been endured by a large number of people living off the hard surfaced highways, who have had such great difficulty in procuring the services of physicians, when ill, during the months of January and February. Up to 1918, the last severe winter in this State; physicians doing any considerable amount of country practice kept

in reserve sufficient horse and buggy transportation to reach their patients when necessary. Another thing, the old Ford Model T was built so high off the ground that it would just about negotiate any road that a horse and buggy could get over.

None of our great systems of hard surfaced highways had even been contemplated previous to 1918. For the past few years the winters have not been severe, the roads have been open practically all the winter, and at the same time practically all automobiles sold have been built lower and lower to the ground. So this winter, when the roads became impassable, there being few horses and buggies to fall back on, many people all over the State have suffered for the want of medical attention. It is hoped that never again will the same conditions prevail. It has not only been hard on the sick patients, but it has been equally hard on the physicians. They have undergone a great deal of exposure and have suffered many hardships like those thousands of us in private practice went through twenty and thirty years ago practically every winter. Reports from many sections indicate that the physicians and the people have met the difficulties with fortitude and courage, and we therefore hope that there have been a minimum number of deaths resulting from inability to procure a physician's service when sorely needed.

* * *

A CHECK-UP on hookworm disease is being made in seventy counties in the State to determine what the infection is today. The survey is being made under the direction of the State Board of Health and in only those counties which showed a 20 per cent infection in 1914.

Sanatorium Sun Ten Years Old

The March issue of the *Sanatorium Sun* is an anniversary number. With the issue of March, that very interesting and helpful publication was ten years old. It seems only just the other day that our friend Miss Sudie Pyatt launched that undertaking. It was to be supported by a small subscription price and advertising. Every number since the first issue has carried helpful information to the people interested in tuberculosis—and that should be every person in the State.

Not long ago the Extension Department of the Sanatorium was able to take the journal over and publish it in connection with the regular Sanatorium work. Several years ago Miss Pyatt resigned and Mr. John M. Gibson became the editor. Since becoming a regular and official part of the extension work under the able direction of Mr. Gibson, the *Sun* has extended its influence.

It is interesting to make a comparison in the tuberculosis situation ten years ago and today. In 1925, the year before the *Sun* was established, there were 2750 deaths from tuberculosis reported to the State Board of Health. That constituted a death rate of 89 per hundred thousand population. In

1935 there were 1935 deaths from tuberculosis in North Carolina, which constituted a rate of 58 per hundred thousand population. To be more specific, in 1935 the State had probably a half million more inhabitants than it did in 1925, but it had 825 fewer deaths from tuberculosis.

It would seem, therefore, to be apparent to any observing person that the fight against tuberculosis is a winning one. It should only be a matter of time when the disease may be eliminated entirely from our State. At present there are a number of well-conducted county sanatoria, and the State itself is now beginning the construction of its new Western State Sanatorium near Asheville. That building should stand until the time comes when not a bed will be occupied by tuberculosis patients.

We herewith extend our congratulations to Dr. McCain, Dr. McBrayer, and Mr. Gibson and all the others who have been associated so long with the work against tuberculosis in this State. We hope that as long as there are any tuberculosis patients left that the *Sanatorium Sun* may continue to carry its message of hope and cheer as well as its valuable information to all such patients.

Pneumonia

By R. E. Fox, M.D., Director, Division of County Health Work

LAST year in North Carolina this disease claimed more lives than any other condition responsible for death, other than infant deaths under one year. Is it any wonder that Sir William Osler called pneumonia "the captain of the men of death"?

The provisional report as compiled by the Bureau of Vital Statistics of the North Carolina State Board of Health for 1935 lists pneumonia, in all of its forms, as being responsible for 3,089 deaths in this State. This was 92.6 per 100,000 population, as compared

with the next highest cause, pulmonary tuberculosis, where there were 52.7 deaths per 100,000 population, and cancer as the third, being responsible for 51.8 deaths per 100,000 population.

The term pneumonia includes a group of varied diseases due to different causes, but all producing an inflammation in the lung tissue. Pneumonia may be primary or secondary; it may be lobar (croupous) in type, or it may be lobular (bronchopneumonia).

While the pneumococcus is the most common cause of pneumonitis, other pathogenic organisms may be responsible, such as streptococci, Pfeiffer's bacilli, Friedlander's bacilli, plague bacilli, typhoid bacilli, and others. A pneumonic condition is also a frequent terminal state, especially in the young and in the old.

Some 95% of the lobar type of pneumonia have been shown to be due to the pneumococcus. This is an acute febrile infection with massive consolidation of lung tissue which, in typical cases, ends by crisis. The pneumococcus is found not only in the lungs and the respiratory tract, but often invades the blood.

As we have noted from the statistics already quoted, pneumonia is the most prevalent and fatal of all acute diseases. It occurs in all climates. It shows a distinct seasonal prevalence, being most frequent in the winter and early spring months. Pneumonia is more fatal among negroes than among whites, and is more frequent in males than in females. It attacks all ages. It is common in children under six years; between the sixth and fifteenth year, the predisposition is less marked, but for each subsequent decade it increases. Sir William Osler has said, "Pneumonia may well be called the friend of the aged. Taken off by it in an acute, short, not often painful illness, the old escape those 'cold gradations of decay' that make the last stage of all so distressing." Pneumonia often

attacks the strong and robust in early adult life, but under these circumstances the chances of recovery are good.

The pneumococcus has been grouped into four main types. Three of these groups show reactions which are fixed and specific. The fourth group includes some twenty-eight subgroups. Studies made on cases of pneumonia reveal that 33% are of group 1, 31% of group 2, 12% of group 3, and 24% fall in group 4 with its subdivisions. Of those cases of pneumonia resulting fatally, type one has been responsible in 25%, type 2 in 22%, type three in 45%, and the large group, type four, in 16%.

The pneumococcus leaves the body mainly in the discharges from the mouth and nose, and enters the system through the same channels. It is assumed, therefore, that this represents the mode of transmission. It must, however, be admitted that there are many factors and features concerning pneumonia that are obscure and puzzling. Evidently the pneumococcus is spread by contact with cases or carriers. The pneumococcus does not thrive in the outer world and man, therefore, must be its source and reservoir. Pneumonia clearly belongs to the great group of contact infections spread by secretions from the respiratory tract. For a person to acquire the disease, it is necessary to have a combination of circumstances: first, the pneumococcus; second, susceptibility to that particular pneumococcus; and third, accessory factors.

Pneumonia is epidemic when influenza and measles are epidemic. However, pneumonic plague always occurs in real epidemic form. The pneumonia, however, is secondary to the influenza and measles. Otherwise, pneumonia shows no tendency to frank epidemic outbreaks. It may be considered as recurring in epidemic form during the cold weather in almost every place hav-

ing a cold winter season. Ordinarily, the disease shows little tendency to develop in those immediately in contact with cases. The excessive prevalence of pneumonia so commonly found in camps, barracks, asylums, and among working people, is believed to be due primarily to crowding of a particularly susceptible group in the presence of specific virulent pneumococci.

Pneumococci are frequently found in the mouths and throats of healthy persons, but a person must be susceptible to the particular organism present in order to contract the disease, and the accessory factors must be present. By these accessory factors, we mean weakening diseases which diminish resistance to the pneumococcus.

Pneumonia is frequent in alcoholics, and is commonly brought on by exposure to cold, trauma, or to local irritation. It is a frequent complication of influenza, measles, whooping cough, typhoid fever, and other infections. Pneumonia often closes the scene in chronic heart disease, pulmonary tuberculosis, Bright's disease, diabetes, and other debilitating affections.

Immaturity and old age, as well as other enfeebling conditions, may act as a predisposing cause by lowering immunity. However, it should be remembered that pneumonia, like other communicable infections, frequently attacks the strong and robust. Fatigue, exposure, and overexertion have long been recognized as contributing causes of pneumonia.

One attack of pneumonia does not confer a high or lasting immunity. In fact, there seems to be increased susceptibility to subsequent attacks. Man, however, must possess a certain degree of resistance to the pneumococcus, else the disease would be more prevalent than it is, and recovery would probably be less frequent. Recurrence is more common in pneumonia than in any other acute disease. Instances are on

record of individuals who have had ten or more attacks. Rush gives an instance in which there were twenty-eight attacks.

All kinds of animals, even the most susceptible, may be rendered actively immune to pneumococcus infection by the previous injection of nonlethal doses of living pneumococci, or even by the injection of the dead cocci. A high degree of immunity may also be acquired by the injection of purified extracts. The serum of such actively immunized animals, in many cases, possesses protective and even curative power. Theoretically, we might expect it to be a hopeless task to produce by artificial methods a useful immunity to a disease which leaves little or no natural immunity. On the other hand, a high degree of protection can easily be induced in susceptible animals to virulent cultures of pneumococci when injected into the abdominal cavity, the blood stream, or under the skin. The results of preventive inoculation upon man by the use of a purified extract is being tried by Felton.

The prevention of pneumonia is still baffling for lack of a better understanding of the fundamental factors in the epidemiology of the disease. We cannot boast of success with an infection which is one of the chief causes of death. The disease should be handled along the general lines found successful with other contact infections.

It is well that sputum be taken from the patient to ascertain the type of pneumococcus causing the disease, for some practitioners feel that cases produced by groups one and two may be benefited by the administration of concentrated serum specific for these two types.

It should become common knowledge that anything which tends to reduce vitality predisposes to pneumonia, such as dissipation, loss of sleep, overwork, worry, poor or insufficient food, lack of exercise, alcohol, colds, or ex-

cesses of all kinds; the atonic effect of living in overheated rooms, and the injurious effect of excessively dried and warmed air, and sleeping in warmed rooms. Cold baths, regulation of temperature and ventilation, sleeping with open windows or in the open air, as well as oral hygiene, are assumed to be useful prophylactic measures for pneumonia, as well as tuberculosis, colds and a large group of diseases.

More attention should be given to the minor acute respiratory infections, such as ordinary colds, so-called influenza, bronchitis, and sore throats. These catarrhal inflammations are often associated with pneumococci and predispose to pneumonia. Persons suffering with these minor infections

should be isolated in bed during the acute stage and at least as long as there is fever. Exposure, overexertion, and fatigue under these circumstances may be hazardous.

We should bear in mind that every case of pneumonia should be regarded as a focus for the spread of the infection. We should think of pneumonia very much as we think of whooping cough and tuberculosis—as an infection which is spread from man to man through the secretions of the mouth and nose.

The prevention of pneumonia rests upon the discovery of an effective immunizing agent. Advances along this line which promise practical results are now in progress.

The State Board of Health Undertakes Work in the Field of Industrial Hygiene

By M. F. TRICE, Sanitary Engineer

NORTH Carolina has recently recognized by law that there are very definite health hazards associated with various occupations in many industries. Until quite recently this fact had been formally acknowledged by only one state health department, that of the State of Connecticut. The United State Public Health Service, however, has long been cognizant of the existence of such dangers; its office of Industrial Hygiene and Sanitation has carried on much research and made many investigations in this field. In fact, much of the present day knowledge of the subject has been contributed by this governmental agency.

The 1935 General Assembly of North Carolina passed what is known as the "Occupational Disease Act." This legislation makes disablement, or death, by an occupational disease interpretable as an accident by injury and thus compensable for the first time under the

compensation laws of North Carolina. Twenty-five diseases and conditions are written in the law as being occupational diseases within the meaning of the Act. For its administration a sum of \$10,000 was appropriated and the chairman of the State Industrial Commission designated as the administrator.

This official, who at the time was Mr. Harry McMullan, recognized the public health aspect of the situation created by the passage of this legislation and sought the assistance and guidance of both State and Federal health officials. As a result, many conferences were held during the late summer and early fall of the past year. These meetings were attended by Dr. C. V. Reynolds, State Health Officer, Dr. R. R. Sayres, Director of the Office of Industrial Hygiene and Sanitation, U. S. Public Health Service, and various members of the State Indus-

trial Commission. These conferences resulted in an agreement that made possible the inauguration of work in industrial hygiene a function of the State Board of Health. Thus a Division of Industrial Hygiene was tentatively set up.

The inception of the work will date from September, 1935, since in that month a physician and an engineer were assigned duties in this field. The

physician, Dr. H. F. Easom, was obtained from the staff of the State Sanatorium (tuberculosis) at Sanatorium, N. C., while the engineer, Mr. M. F. Trice, came from the Division of Sanitary Engineering of the State Board of Health. Since their transfer, these men have devoted all of their time to the inauguration of industrial hygiene activities in the State.

Anti-Mosquito Campaigns

By M. F. WOOTEN, JR., Assistant Engineer, North Carolina State Board of Health

ANTI-MOSQUITO campaigns will, of course, vary in nature according to the community in which the work is to be done. For this reason no general rule can be given, but it is well to indicate a few of the facts which should be kept in mind and a few of the possible "lines of attack."

In general, municipal anti-mosquito work must include the control of all different types of mosquitoes which are encountered in the town or city, whether disease-bearing or merely pestiferous; otherwise the campaign will fail to receive the necessary popular support. In rural campaigns the important activities may be confined to the protection of the people from the attacks of the mosquitoes rather than the control of the mosquitoes themselves. This is usually done by screening, mosquito-proofing, better housing, and so on.

Ordinarily, larger problems are encountered in municipal campaigns, and even though the campaign is primarily a health measure directed against the malaria-bearing mosquitoes, it must include suppression of all mosquitoes in order to be considered a success by the people in the municipality. The average person regards mosquitoes as mosquitoes, and he will not be very apt to believe in the efficacy of anti-malaria

work unless he can notice a corresponding decrease in the number of ordinary pestiferous mosquitoes. It must be remembered, too, that in the average inland town the people themselves raise most of the mosquitoes about which they complain. It is a comparatively simple matter to eradicate *Anopheles* mosquitoes, which breed mostly in ditches, pools, and other natural breeding places; but the elimination of all mosquitoes is a man-sized job.

One of the most important factors in successful anti-mosquito work is an adequate, well-organized inspection service which can make vigorous and systematic inspections of all premises. This should be coordinated with the inspection of streams, marshes, and swampy areas in the outlying districts in such a manner that every spot in which there is a possibility that breeding may occur will be visited once a week or at least once every ten days.

The organization of the inspection work will vary with the size of the town or city and the amount of work to be done. Supervision is usually given by the health officer. If the health officer is employed on a part-time basis, the direct supervision may be given by some other city employee such as the city engineer, water works

superintendent, city marshal, or street superintendent. If the town is small, perhaps one inspector can do the entire job. If the town is large, it should be divided into inspection areas, with an inspector in charge of each.

When the inspector makes the first inspection of his area, he should take his time and explain his mission to the occupants of each house which he visits. He should point out to the occupants any actual or potential breeding places and insist politely that they be eliminated. If he sees any condition that he considers should be handled by the anti-mosquito forces, such as a large pool in a street ditch that needs draining, he should make a note of it and report it to the proper authority.

If, on his second trip of inspection, the inspector finds mosquito breeding through fault of the occupant of the premises, he must have an anti-mosquito ordinance to rely upon in forcing the removal of these breeding places. The ordinance at the end of this article was prepared jointly by the U. S. Public Health Service and the International Health Board and is recommended for adoption in any town or city.

Publicity must not be forgotten, for it is probably one of the greatest helps the director of an anti-mosquito campaign can have. After all, one of the most important objects of the whole campaign is education. When the people have learned how to free themselves from mosquitoes, they will go a long way toward doing it without any urging by the inspector. The publicity should not be stopped after the funds for the campaign have been obtained and the campaign is well under way. A steady flow of publicity should be kept up from the time the work starts until after it is ended for the season. There should be issued periodic statements of the progress being made, giving such information as the percentage of drainage completed, the formation of an oiling

crew, the appointment of inspectors, the duties of the inspectors, the habits of the *Gambusia*, the stocking of ponds, and other similar subjects. In short, the people of the community should be informed what is being done and how it is being accomplished.

The following ordinance has been in force in towns in North Carolina and has been a part of several successful anti-mosquito campaigns.

ORDINANCE FOR THE PREVENTION OF MOSQUITO BREEDING IN THE

.....
.....
Section 1. It shall be unlawful to have, keep, maintain, cause or permit, within the (incorporated) limits of

.....
any collection of standing or flowing water in which mosquitoes breed or are likely to breed, unless such collection of water is treated so as to effectually prevent such breeding.

Section 2. Any collection of water considered by Section 1 of this ordinance shall be held to be those contained in ditches, pools, ponds, excavations, holes, depressions, open cess-pools, privy vaults, fountains, cisterns, tanks, shallow wells, barrels, troughs (except horse troughs in frequent use), urns, cans, boxes, bottles, tubs, buckets, defective house roof gutters, tanks of flush closets or other similar containers.

Section 3. The method of treatment of any collections of water that are specified in Section 2, directed toward the prevention of breeding of mosquitoes, shall be approved by the accredited health officer, and may be any one or more of the following:

(a) Screening with wire netting of at least 16 meshes to the inch each way or with any other material which will effectually prevent the ingress or egress of mosquitoes.

(b) Complete emptying every seven (7) days of unscreened containers, together with their thorough drying or cleaning.

(c) Using an approved larvicide applied under the direction of the health officer.

(d) Covering completely the surface of the water with kerosene, petroleum or paraffin oil once every seven (7) days.

(e) Cleaning and keeping sufficiently free of vegetable growth and other obstructions, and stocking with mosquito-destroying fish.

(f) Filling or draining to the satisfaction of the health officer.

(g) Proper disposal, by removal or destruction, of tin cans, tin boxes, broken or empty bottles and similar articles likely to hold water.

Section 4. The natural presence of mosquito larvae in standing or running water shall be evidence that mosquitoes are breeding there, and failure to prevent such breeding within three (3) days after notice by the health officer shall be deemed a violation of this ordinance.

Section 5. Should the person or persons responsible for conditions giving rise to the breeding of mosquitoes fail or refuse to take necessary measures to prevent the same, within three (3) days after due notice has been given to them, the health officer is hereby authorized to do so, and all necessary cost incurred by him for this purpose shall be a charge against the property-owner or other person offending, as the case may be.

Section 6. For the purpose of enforcing the provisions of this ordinance, the health officer, or his duly accredited agent, acting under his authority, may at all reasonable times enter in and upon any premises within his jurisdiction; and any person or persons charged with any of the duties imposed by this ordinance failing, within the time designated by this ordinance, or within the time stated in the notice of the health officer, as the case may be, to perform such duties, or to carry out the necessary measures to the satisfaction of the health officer, shall be deemed guilty of a separate violation of this ordinance.

Section 7. Any person who shall violate any provision of this ordinance shall on each conviction be subjected to a fine of not less than One Dollar (\$1.00) or more than Twenty-five Dollars (\$25.00), or imprisoned for not more than ten (10) days, or both, at the discretion of the court.

Section 8. All ordinances or parts of ordinances in conflict with this ordinance are hereby repealed, and this ordinance shall be in full force and effect 15 days after its approval.

Section 9. Should any section, paragraph, sentence, clause or phrase of this ordinance be declared unconstitutional or invalid for any reason, the remainder of said ordinance shall not be affected thereby.

Adopted this.....day of.....

Approved this.....day of.....

Pellagra

There were fewer deaths from pellagra in 1935 than were reported in 1934; but, judging from reports received from physicians and others about over the State independent of the direct report of cases to the epidemiological department, there seems to be a

trend for an increase in cases and deaths from this disease this year. For example, in the month of January 30 deaths were reported, as compared to 29 deaths in the same month last year. We want to call attention to the matter at this time because the months of

April, May, and June nearly always seem to be the time in which more cases and more deaths occur from pellagra. The disease is probably present in latent form all through the fall and winter, but the varying changes in the spring months seem to precipitate the attack.

We repeat again that in a State such as North Carolina there should be at

least very few cases and still fewer deaths from this disease. There is much yet to learn about pellagra, but enough is already known to prevent most cases. If every family in the State could only be induced to partake of a commonsense, varied diet, which includes pellagra-preventing foods, the disease would no longer be a problem.

Extracts From County Health Officers' Reports

NOW and then some of the county health officers favor us with a narrative report of their work. All such reports have many items of general interest. We have space here for a brief review of two or three such reports which were very interesting to us.

FRANKLIN COUNTY

Dr. R. F. Yarborough, the health officer of Franklin County, has sent us a copy of his report for the six months period ending December 31, 1935. Besides doing the general routine work falling to the lot of any county health department having a minimum of three units, that is, health officer, nurse, and clerk, Doctor Yarborough has the following interesting comment on midwife control work:

"Midwife clinics were held at four points in Franklin County each month. Every midwife in the county has had a physical examination, including a Wassermann, blood pressure, urinalysis, and so on. They were examined carefully as to cleanliness and general fitness for the work of a midwife. Their bags containing their equipment had to conform to the minimum standards, and were carefully examined in the case of each one as to cleanliness and contents.

"At several points in the county centers were established and monthly examinations made of all babies of indigent parents. Midwives were urged to have their promised cases of expectant mothers come to the centers for regular examinations. On the first visit blood was secured for Wassermann examination, and all those showing positive reaction were given the anti-syphilitic treatment later on. These mothers were very carefully examined in the usual manner and given specific medical advice in order to contribute to their safety. The mothers bringing babies were carefully instructed as to the feeding and establishment of proper health habits for the babies while quite young. The question of cleanliness in the prevention of diarrheal diseases and immunization against the communicable diseases was insisted upon. All of the children having had infantile' paralysis during the year were visited and carefully examined later by an orthopedic specialist. Subsequent treatment was rendered when found necessary."

BERTIE COUNTY

Dr. F. H. Garriss, health officer of Bertie County, has sent us a most interesting summary of the birth and death rate for 1935 in Bertie County.

That county, of nearly 28,000 population, has about 60 per cent colored people. The white birth rate in the county was a little under 22 and the colored birth rate in the county was 32, the combined rate of both being a little under 28. The white death rate was a little under 10 and the colored death rate a little over 15, making the combined death rate of a little over 12 per 1,000 population.

The county experienced an unusually high infant death rate, that is, deaths of babies under one year of age for the year. Doctor Garriss reports the startling fact that of the infant deaths 27 of them who died under one year of age died as a result of whooping cough. The epidemic of whooping cough last year was unusually severe. These definite figures from Bertie County afford evidence of that fact. Nine of the babies dying of whooping cough were white and 18 were colored. We have not seen the analysis for any other county, but will await such reports with a great deal of interest. It will be some time yet before the State Vital Statistics Department is able to finish the compilation of such information for last year for all the counties in the State.

Doctor Garriss examined 440 expectant mothers during the period of eighteen months ending with December 31. More than 95 per cent he reported were colored women and were delivered by midwives. Of the total 440 cases, all were given the Wassermann test for syphilis, and only 22, or about 5 per cent, gave a positive reaction. This is a most interesting item in that it points to a light infection in the Negro women of that county of child-bearing age.

WILSON COUNTY

Dr. W. H. Anderson, health officer of Wilson County, reported that during the month of January he had been made chairman of a committee to meet with the eye, ear, nose, and throat specialists of that county for the purpose of arranging operations for indi-

gent children suffering from diseased tonsils. He reported that satisfactory arrangements were made with the specialists, with volunteers from the medical profession, who were to give the anesthetic, and with the nursing profession, who had volunteered their services without charge. They had arranged to operate on about three children at a time on days selected by the operators as suitable. They had funds available for the relief of about thirty children.

Death of Many Children Due to Carelessness With Drugs

Some one has sent us a clipping from the *News and Observer* giving an account recently of the death of a child in Bladen County as a result of eating some aspirin tablets. We herewith quote the item in full:

"CHILD EATS ASPIRIN AND DIES AS RESULT

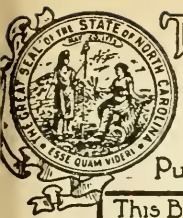
"Robert Livingston, the one-and-one-half-year old son of Mr. and Mrs. Zeb Pait of West Bladenboro, who died yesterday from eating aspirin tablets, was buried this afternoon following funeral services at Oak Grove Church.

"The small child, who was with his mother and others in the house, went into a bedroom, climbed upon the dresser, got a bottle of aspirin tablets and ate a large quantity. Efforts were made by the family to rid the child of the drug and immediately started him to a nearby hospital, but he died before reaching there."

Not long ago the newspapers carried the notice of a death of a child in Danville, Virginia, as the result of eating some candy-coated tablets thrown on the porch of the child's home. The tablets were in packages and were promiscuous samples of a patent medicine being advertised at the time. The tablets contained strychnine, and the child died in convulsions a short time after eating the samples.

We repeat again, drugs of any description should never be left within the reach of small children. The older members of a family who do this are all potential murderers. A child killed from eating drugs carelessly left within reach is just as dead as if he had been deliberately given a dose of poison.

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MAY, 1936

No 5



Mary Brown Hill and William Gilchrist Hill, children of Mr. and Mrs. Dudley B. Hill, of Wilmington. The Bulletin has never printed a finer picture of radiant health.

Dr. J. Buren Sidbury, of Wilmington, who always supplies our front cover for the May issue, sent us the photograph. Dr. Sidbury is one of the State's pioneer pediatricians. He has relieved the anxiety of countless parents and saved the life of many a baby.

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FREE HEALTH LITERATURE

The State Board of Health publishes monthly **THE HEALTH BULLETIN**, which will be sent free to any citizen requesting it. The Board also has available for distribution without charge special literature on the following subjects. Ask for any in which you may be interested.

Adenoids and Tonsils
 Cancer
 Constipation
 Chickenpox
 Diabetes
 Diphtheria
 Don't Spit Placards
 Eyes
 Flies
 Fly Placards

German Measles
 Health Education
 Hookworm Disease
 Infantile Paralysis
 Influenza
 Malaria
 Measles
 Pellagra
 Residential Sewage
 Disposal Plants
 Sanitary Privies

Scarlet Fever
 Smallpox
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 Tuberculosis
 Tuberculosis Placards
 Typhoid Fever
 Typhoid Placards
 Venereal Diseases
 Water Supplies
 Whooping Cough

SPECIAL LITERATURE ON MATERNITY AND INFANCY

The following special literature on the subjects listed below will be sent free to any citizen of the State on request to the State Board of Health, Raleigh, N. C.

Prenatal Care (by Mrs. Max West)
 Prenatal Letters (series of nine monthly letters)
 Minimum Standards of Prenatal Care
 Breast Feeding
 Infant Care. The Prevention of
 Infantile Diarrhea
 Table of Heights and Weights

Baby's Daily Time Cards: Under 5 months;
 5 to 6 months; 7, 8, and 9 months; 10,
 11, and 12 months; 1 year to 19 months;
 19 months to 2 years.
 Diet List: 9 to 12 months; 12 to 15
 months; 15 to 24 months; 2 to 3
 years; 3 to 6 years.
 Instructions for North Carolina Midwives

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THE Health Bulletin

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Notes and Comment

By THE EDITOR

IN these May days, when the "lazy Lawrences" dance around on the fences and the roof tops and the fields and roads, the nights get shorter and the days become longer, the house flies and the mosquitoes begin to stir and the babies therefore enter upon a little more dangerous period than before. Summer time is a grand period for the older people. Generally the death rate from almost every disease drops. There is less sickness and less disturbance of every kind. But for the babies, particularly those under a year of age, it is a time usually of increasing illness and greater hazards.

We are pleased to announce that the tabulations of the deaths of babies under one year of age published some time ago in the HEALTH BULLETIN numbered a great deal fewer than in the previous year. We will repeat: in 1935, up to now there have been reported 5,358 infant deaths under one year. For 1934 the total number of deaths was 6,196. So we see that the death rate per 1,000 live births in 1934 was 77.9, while the provisional rate for 1935 was 67.2. One or two fractional points will be added to this when the final tabulations are completed and delayed reports are added, on or before the first of July. In case of maternal deaths the showing was equally as good. Six hundred and five mothers sacrificed their lives as a contribution to the perpetuation of the race in 1934. Last year only 523 succumbed. The rate therefore for 1934 was 7.6 per 1,000 live births. Last year it was 6.6.

The two earlier months of this year were bad on babies on account of the intense cold weather, the spread of influenza, and the resulting complication of pneumonia in so many instances. The ground lost, however, in February and March may be recovered in May and June, with careful attention given to all the babies in the State.

It cannot be printed too often or in too many places that some of the essentials for safety to babies are a screened house, the use of mosquito netting over the baby's bed to prevent the flies from disturbing its sleep, clean bed and clean clothing (no matter how simple or inexpensive those two items are), careful attention to every morsel of food that goes into the baby's mouth, and a pure water supply in abundance. All babies should have boiled water, particularly in the summer time, up to three years of age. The water should be boiled and allowed to cool before being given to the baby.

The State Board of Health has diet lists and time cards and larger publications setting forth many valuable suggestions as to the kind or type of food and its preparation for babies and young children. This literature is invaluable to any mother who will secure it and study it. The fact is, the mother should avail herself of the literature the State Board of Health has for her, known as "Prenatal Literature," several months before the baby's birth. Then, the publication known as "Infant Care" should be in

the possession of every family with a baby under one year of age, and it should be scrupulously studied. Then there is another publication known as "The Child from One to Six," prepared by specialists in the employ of the U. S. Children's Bureau, which affords much valuable advice and help to parents toward properly caring for the child from one to six, which all parents know is a difficult period. This literature is available now to any family in the State who will write to the State Board of Health and ask for it. It is provided free to individuals who request it.

This literature in no way takes the place of the family physician or the dentist. It is devised to offer suggestions and help on various minor details

which it is impossible for physicians to give in all cases. An increasing number of practicing physicians in the State are availing themselves of this literature. They write and request it for their patients, and we are always glad to comply immediately. Any physician would much prefer advising an intelligent person who has studied these questions and who knows something about them and therefore who can better understand his reasons for instructions and treatment often necessary for children. Such physicians are coming more and more to realize the value not only to their patients but to themselves. It is a mutual enterprise—all of it redounding to the benefit of everybody concerned.

Policies of Radio Station WBIG in Greensboro, North Carolina

MR. EDNEY RIDGE, director of Radio Station WBIG in Greensboro, North Carolina, has written us that his station has refused repeatedly to offer their facilities to a certain so-called patent medicine concern which is very active in this part of the South at present and has been for the past three or four years. This action on the part of Mr. Ridge is most commendable. In our April edition we criticized a parent-teacher association in one town of the State which had allowed this concern to exploit its product, which is an ordinary common salts, little prescribed by physicians for human ailments, by staging contests in the schools. We learned from Mr. Ridge that it was not a direct sales contest, which would not have been, in our opinion, as reprehensible.

Among the methods employed is to stage, over certain radio stations, who accept this advertising, amateur contests between various string bands

from different small towns of the State. The children are required to listen and gain certain points in these programs, and so their contests are not only between local bands but carry down to the school children. The result, of course, is that the children unconsciously absorb the advertising as do older people, and thus sales are increased. It is a subtle type of advertising, a sort of slipping-into-the-back-door kind of advertising, a good deal on the principle of the agent who rings the door bell and gets his big foot into the door so that the housewife cannot close it in his face.

We learned from Mr. Ridge that this stunt has not been confined to small towns, but such a program was put on sometime ago in one of the city schools of Greensboro, under the guise of a fraternal organization's campaign for something or other. In that case the contest had to be carried on by children listening to broadcasts from other sta-

tions, such as Raleigh and Charlotte, which carry the advertising, as the local station at Greensboro has refused to open their channels for such purpose. We have known Supt. Guy B. Phillips of the Greensboro City schools, for a long time. We know him to be interested in the cause of public health and we know that had he been given the slightest information as to the nature of this advertising and the methods pursued, that he would not have voluntarily given his consent. But when a great school system such as the Greensboro City Schools are imposed upon in such a manner, the smaller schools in the little towns do not have much chance for resisting such methods of advertising.

We take pleasure in not only commending Mr. Ridge for his stand, but we wish to pass along to our readers the statement of policies adopted by the Greensboro radio station, in which it will be seen that they take a high stand in this important matter.

"In accordance with this responsibility we list some specific themes and dramatic treatments which are not to be permitted in broadcasts for children:

"The exalting, as modern heroes, of gangsters, criminals and racketeers will not be allowed.

"Disrespect for either parental or other proper authority must not be glorified or encouraged.

"Cruelty, greed and selfishness must not be presented as worthy motivations.

"Programs that arouse harmful nervous reactions in the child must not be permitted.

"Conceit, smugness, or an unwarranted sense of superiority over others less fortunate may not be presented as laudable.

"Recklessness and abandon must not be falsely identified with a healthy spirit of adventure.

"Unfair exploitation of others for personal gain must not be made praiseworthy.

"Dishonesty and deceit are not to be made appealing or attractive to the child.

"Advertising Which Discusses Internal Bodily Functions, Symptoms, etc.

"In hearty agreement with the Columbia Broadcasting System radio station WBIG will permit no broadcasting of any product which describes graphically or repellently any internal bodily functions, symptomatic results of internal disturbances, or matters which are generally not considered acceptable topics in social groups. This policy will specifically exclude from radio station WBIG not only all advertising of laxatives as such, but the advertising of any laxative properties in any other product. It will further exclude the discussion of depilatories, deodorants and other broadcasting, which by its nature, presents questions of good taste in connection with radio listening.

"Commercial Announcements

"Believing that insistent sales talk and excessive advertising tends to discredit advertising and prevents the desired results, WBIG will, in the interest of the audience and the great majority of advertisers, set the following maximum allowances for commercial announcements:

"A maximum of ten per cent of the total broadcasting period may be devoted to the sponsor's commercial announcements, including contests and offers, on programs broadcast after six o'clock P. M.

"A single exception of the ten per cent ratio will be made on quarter-hour programs, on which an additional allowance of forty seconds will be made.

"Daytime programs, before six o'clock, will be allowed a maximum of fifteen per cent of the total period for

commercial announcements, with an additional forty seconds for quarter-hour programs.

"WBIG is satisfied that the best thought of many leading advertisers, as well as of the broadcasting industry, is reflected in these policies. They set higher standards in broadcasting than has ever been attempted before.

Basic Advertising Policies

"Here are the basic advertising policies of WBIG, that will always be in effect:

"No false or unwarranted claims for any product or service.

"No infringements of another advertiser's rights through plagiarism or unfair imitation of either program idea or copy.

"No disparagement of competitors or competitive goods.

"No lottery or drawing contest. No contest of any kind in which the public is unfairly treated.

"No programs or announcements that are slanderous, obscene, or profane, either in theme or in treatment.

"No ambiguous statements that may be misleading to the listening audience.

"No advertising matter, or announcements, programs which may, in the opinion of the System or WBIG, be injurious or prejudicial to the interests of the public, the station, or honest advertising and reputable business in general.

"No testimonials which cannot be authenticated.

"The management of WBIG will continue to cooperate fully with educational, religious and civic organizations. It is the intention and purpose of this station to serve this favored region with the best radio programs and the best service possible.

"This station is operated, and will continue to be operated for the public interest, convenience and necessity."

Sunshine For Babies

(Condensed from a Children's Bureau Publication—*Sunlight for Babies*)

MANY good things come from above and not one of the least of these is sunlight. Now that we know more about the healing properties of the sun's rays—their power to destroy bacteria and build up strong, disease-resisting bodies—we should make the most of this great gift of Nature.

It is now known that sunlight is a most important factor in the life of a growing child, especially a baby. Normal growth of bone is dependent not only on the food that the child eats but also on the direct sunlight that he receives, for the sunlight provides the body with the power to utilize the food. If a baby is continually deprived of direct sunlight his bones will not

develop normally, his muscles will be flabby, and his skin will be pale. He may have rickets—a disease that affects the whole body but more strikingly the bones.

It is said that the months of May, June and July is the season of the year when the ultra-violet content of the sunlight is at its height. Hence, spring is the best time to start giving the baby its daily sun baths. Southern babies, it is said, can have outdoor sun baths all the year round, unless it is in extreme cold weather which the South does experience sometime. But normal babies may start their sun baths the first mild sunshiny days in spring and keep them up through the summer and fall. They should be be-



A North Charlotte Well Baby Station. All this group were immunized against diphtheria at six months of age. All their mothers were given instructions in general infant care. Picture is an example of the excellent work being done by the Charlotte Health Department.

gun when the baby is about 3 or 4 weeks old and continued throughout his childhood when he can be taught to seek the sunshine for himself.

Direct Rays Essential

The beneficial effect of sunlight is not obtained unless the rays reach the skin directly. Either clothing or window glass will keep out the beneficent ultra-violet rays. Therefore, sun baths in the direct sunlight are the simplest method of giving the baby enough ultra-violet light. It is only when the skin begins to tan that any benefit may be expected. A good tan is evidence that the ultra-violet rays are being effective.

How to Give the Baby a Sun Bath

On the first sunny day in early spring the baby may be put in the direct sunlight with the hood of the carriage and the baby's cap pushed well back so that the sun will shine directly on his cheeks. He should be turned first on one side and then on the other so that both cheeks will be exposed to the sun and yet the eyes will be kept away from the direct rays. On this first day the baby's hands should

be exposed to the direct sun for a few minutes. Care must be taken not to burn the skin.

A slight reddening of the skin each day will gradually bring about pigmentation or tanning. Unless the baby is accustomed to the sunlight through exposure at an open window the first outdoor sun bath should be for 10 or 15 minutes only. Each day thereafter the exposure to the sun should be increased by 3 to 5 minutes.

Every few days the amount of body surface exposed should be increased, at first slowly, but as the days grow warmer, more rapidly.

Baby Should Have a Coat of Tan

After the face and hands are used to the sun the arms may be bared, at first one at a time, later both together. They should be bared for only a few minutes at first, and the time increased daily. Soon the legs also may be bared, at first one at a time, and later both together. Gradually the baby gets used to the sun, and by the middle of May or the first of June sun baths may be given the whole body. When the face, arms, and legs are tanned the shirt

should be taken off for a short time daily, and finally the band and diaper. The sun baths may be lengthened until the baby lies in the sun for an hour in the morning and an hour in the afternoon.

Sun Baths for Older Children

Though sun baths are of primary importance for the baby they are also of great value for the "runabout" and the pre-school child. Sun bathing is more important for the child than sea bathing, and it is accessible everywhere in spring and summer. Clothing for sun baths should be low in the neck, short in the legs, and without

sleeves. An ordinary bathing suit or bathing trunks, a sleeveless slip, or a set of cotton underwear may be worn.

Sun baths may be given in the fields, in a city back yard, on a roof, or on a porch, as well as on a beach. Care must be taken not to let the child's skin become sunburned severely. The best time for sun baths is in the morning.

Tanning is the goal for which to strive, and the process must be gradual. The exposure should begin with the face and arms and increase slowly in duration and in the extent of body surface exposed, until the whole body is exposed for two hours a day.

Pre-School Age Most Important Health Period

By MRS. J. HENRY HIGSMITH



Alice Russell Palmer, daughter of Mr. and Mrs. J. R. Palmer, Macon, N. C. Mrs. Palmer says, "With the advice of our physician and the aid of the State Bulletin we have a perfect baby."

THAT period in a child's life known as the pre-school age—from two to six years—is probably the most important he will ever have from a health standpoint. It is important because in this period the foundation is laid for his future health. Great physical and mental growth takes place and he makes those adjustments that are necessary to live in a socially complicated world. It is in this period when he forms physical, mental and emotional habits that are to determine largely the state of his future mental and body health, and whether or not he becomes a stable social asset as a citizen in his community.

The pre-school age is a period in which perplexing problems concerning their children's health confront parents. In passing from infancy to childhood many changes take place. A child completes his first set of teeth and starts building his second; he doubles his weight, also his height, and usually

contracts some or all of the contagious children's diseases that are going the rounds in the community, such as measles, whooping cough, chickenpox, and the like. Instead of children in this period having the most watchful care and supervision regarding their physical development, they are frequently left to themselves and are dreadfully neglected. Bad habits are allowed to form with defects and abnormalities as the result, and minor troubles that could have been easily remedied are permitted to become serious.

The safest way for parents to supervise the growth and development of their children during this important period is to have them examined periodically by a doctor and a dentist, at least every six months. At such examinations little defects are often discovered which are easily corrected, but which if they be allowed to persist, become difficult to handle. Advice and directions are given at these examinations for preventing as well as for correcting unhealthy conditions.

Parents are learning that it is economy to go to a doctor to keep their children well, rather than go to him only to cure diseases that might have been prevented. They are no longer satisfied to have "puny," "sickly" children since they know that these are abnormal conditions frequently caused by some defect that is easily remedied. Nothing short of really healthy children should satisfy parents. The healthy child who has the best chance of growing into the healthy adult is the one who lives a regular life, has good health habits, eats well-planned meals at regular hours, gets plenty of sleep in fresh air, plays vigorously out of doors in the sunshine, and has good posture.

One specific duty of parents is to get their child ready to enter school for the first time, free of all defects and physical handicaps. A physical defect puts a child at a disadvantage with its

schoolmates. Poor sight or hearing may make him seem dull in school and cause him to become discouraged and uninterested. The first step in getting him ready to take his place well equipped with other children is a thorough physical examination by a physician and a dentist in the spring or early summer. This will allow the summertime for correction of defects and for immunization against diphtheria, smallpox and typhoid.

Questions that parents should ask themselves before starting their six-year-old to school are: Does he see and hear well? are his teeth sound and well kept? are his nose and throat in a healthy condition? has he been gaining steadily in weight? has he been growing in height? are his eyes bright,



Paul Craven, of Biscoe, North Carolina, writing to "Jack" in the dental picture show put on by the State Board of Health in his school, says that he eats the right food, brushes and exercises his teeth daily, and goes to the dentist three times a year. Since he has sent his picture and is requesting one of "Jack's," he evidently wants to see how he compares in looks with "Jack."

cheeks red, muscles firm, posture erect? has he been vaccinated against smallpox and immunized against diphtheria and typhoid? has he good habits of eating, sleeping, exercise, bathing,

elimination, self-control and obedience? If so, he is ready for school and the chances are he will not be a "repeater", not a liability to the State and community.

Keeping The Child Healthy And In Tune For School

IS YOUR CHILD READY FOR SCHOOL?

The child who is to enter school for the first time in the fall should have a thorough examination by a physician and by a dentist in the spring or early summer. This will allow the summer-time for correction of defects and for vaccination; also for immunization if needed. (School brings added danger of getting communicable diseases.) If the child has not been having half-yearly examinations up to this time a

thorough examination is especially needed.

A physical defect puts a child at a disadvantage with his schoolmates. Poor sight or hearing may make him seem dull in school and cause him to become discouraged and uninterested. Do not let your child reach school age with a handicap that can be removed. Ask yourself these questions:

Does my child see and hear well?

Are his teeth sound and well kept?

Are his nose and throat in healthy condition?

Has he been gaining steadily in weight during the last year?

Has he been growing in height?

Are his eyes bright, his cheeks rosy, his muscles firm, his posture erect?

Has he been vaccinated against smallpox and immunized against diphtheria, also against typhoid fever?

Has he good habits of eating, sleeping, exercise, bathing, elimination, self-control, and obedience?

THE HEALTHY CHILD

A healthy child has pink cheeks and red lips. His eyes are bright. His skin is smooth, his muscles firm, and his body straight and strong. He grows tall and gains weight month by month. He is active, alert, and interested in everything. He plays vigorously, creeping, running, jumping, climbing, according to his age. He is often noisy. He is hungry at mealtimes, and he



Margaret Merle Cates, daughter of Mr. and Mrs. W. D. Cates, Graham, N. C. Mrs. Cates says she found the State Board of Health literature indispensable before and after birth of her child.

sleeps soundly and long. His bowels move daily. He has no abnormal discharge from eyes, ears, or nose. He breathes with his mouth closed. He does not have pains nor aches.

HOW TO KEEP YOUR CHILD HEALTHY

Take your child for a regular *health examination* twice a year to a doctor experienced in the care of children.

If your child has not already been given *special protection* against typhoid, smallpox, and diphtheria, ask the doctor to give it to him and to advise you how to guard him against other diseases.

Take him to a *dentist* regularly twice a year for examination and care

of his teeth, beginning at the end of the second year.

Give him a well-planned *diet*, including milk, green vegetables, fruit, cereals, meat and eggs.

Be sure that he has *11 to 13 hours of sleep* every night and a daytime *nap* of 1 to 2 hours.

Send him outdoors for *play* and exercise in the *sunshine*.

See that he has *good habits* of eating, sleeping, exercise, cleanliness, and elimination.

Weigh him once a month; *measure* his height twice a year.

Are you doing all this for your child?
—Children's Bureau, U. S. Department of Labor.

Good Health Habits Easily Formed

By MRS. J. HENRY HIGHSMITH

THERE is nothing that stands a person in good stead like good health habits formed early in youth. The secret of living to a ripe old age and meanwhile keeping vigorous and fit is usually found to be the observance of good health rules which have been practiced from youth up. So important are good health habits in keeping down sickness and in preventing those insidious diseases that steal upon man around middle age that the formation of health habits in children is considered a parent's first duty.

Psychology has recently given us many helpful hints and suggestions for helping a child to form wholesome habits. One is that the thing to be learned must be made as pleasing and attractive as possible. The more satisfaction there is in doing a thing the first time, the easier it is to do it the second and third.

Another is that the child should be taught as soon as he is able to comprehend it, what he is doing and why. An intelligent reason for doing a thing



Charles S. Boone, son of Mr. and Mrs. Charlie M. Boone, R.F.D. 1, Nashville, N. C., was one year old at the time this picture was made. He has been immunized against diphtheria, smallpox, and whooping cough. He has been reared "right by the N. C. Health Bulletin, and at fifteen months of age has never been sick."

makes all the difference in the case, interest and application one gives to the task whether he be a child or an adult.

Praise is also essential. A little word of encouragement now and then not only relieves the process of monotony and fatigue but speeds up progress and leads to efficiency.

Of course there must be regularity for any degree of success. To insist on regularity is to give it importance and emphasize its value. It is a child's conviction as well as an adult's that a thing that is worth doing at all is worth doing well and regularly.

By way of applying these simple rules, take the process of teaching a child to form the habit of brushing his teeth at least twice daily. In the first place, he should have an attractive new brush, child's size, and a pleasant tasting paste, to start with. A fre-

quent change of paste and style of brush will help to keep up interest. The use of a mirror will be of great aid. To know that he is keeping his teeth clean and free of germs in order to prevent their decay is the motive for his efforts. To be told that he is succeeding, that his teeth are being kept clean and free of disease germs, will redouble his interest and efforts, and to teach him the necessity of brushing his teeth regularly twice a day will not only cause him to form the habit readily but will make him satisfied with no other but a clean, healthful mouth.

Other health habits that children should be taught to form early in life are: eating regularly of the food served them without fuss or play; going to the toilet at regular intervals during the day; and going to sleep promptly when put to bed.

Malaria on the Increase

Observance of All Practical Methods of Mosquito Control Urged

By MRS. J. H. HIGHSMITH

A disturbing note sounded at the Sanitarians School - Conference held at State College, February 18-21, was that malaria in North Carolina is on the increase. This was adjudged from the fact that deaths from malaria has risen from 50 in 1933 to 78 in 1934 and to 93 in 1935. The cause of this almost sudden rise has not yet been determined but the fact was sufficient to arouse keen interest among the sanitarians and to stimulate more determined efforts on their part to effect mosquito control.

While much is now known about the cause and spread of malaria—the anopheles mosquito—its control remains a difficult as well as a perennial problem. The mosquito and the house

fly were said to be the two remaining insect pests that affect human health and happiness to any great extent for which no permanent and definite control has been found. However, enough is known about malaria control which if applied rigorously and persistently will greatly reduce the incidence as well as the severity of the disease.

In addition to cooperating in the program of malaria control that is sponsored by the State Board of Health, the observance of the more easy and yet practical methods of controlling malaria was urged by malaria experts attending the school. These were mentioned as ditching, draining, filling-in, straightening streams, oiling stagnant pools, covering dump heaps,

screening houses, and rain-barrels, keeping rain gutters open, stocking lily pools with fish and minnows, and spraying.

Pyrethrum sprays were recommended as being among the most effective, the ingredients to be had from local druggists. It was brought out also that this spray used in large quantities two hours in advance would repel mosquitoes at out-door gatherings such as barbecues, picnics and camping parties. A repellent recommended for home and

personal use was composed of citronella, 1 oz.; camphor, 1 oz.; oil of cedar, $\frac{1}{2}$ oz. For bites, the application of ordinary soap was suggested, also the external use of alcohol.

For effective screening against mosquitoes, an 18 or 20-inch mesh screen was advised, the regular 14 and 16-inch mesh used against flies having been found ineffective against mosquitoes.

The treatment of malaria it was emphasized, should always be under the direction of a physician.

Program For An Undernourished Child— 2 to 16 Years of Age

FOR several years women's clubs, parent-teacher associations, church groups and certain civic organizations have been interested in helping the undernourished child. They have done a great work in providing more and better food for this underprivileged group, especially in giving milk and free lunches to undernourished school children.

But since malnutrition may be the result of other factors, as it frequently is, besides that of insufficient food, a program of preventive or restorative treatment calls for more than attention to food and diet. A child's nutrition may be interfered with by some physical defect, or faulty habit of eating or living, making necessary an examination by a physician to detect these causes.

The Children's Bureau of the U. S. Labor Department has outlined an excellent program for the benefit of an undernourished child from 2 to 16 years, which is recommended and here given:

DIET

The diet must include the following protective foods:

MILK—One quart of whole milk daily, either fresh or prepared by dilut-



James Robert Massey, son of Mr. and Mrs. W. R. Massey, R.F.D. 1, Wellford, South Carolina. This baby was North Carolina's first in the year 1935; and was born in Rutherford County. He has been immunized against diphtheria, and also had the small-pox vaccination. The time cards, as well as other literature, are still a great help.

ing evaporated or dried milk. To this may be added other milk products, such as dried skim milk, cream, and cheese. *Milk is indispensable in the child's diet.*

BUTTER—On bread or other foods.

EGG—One daily.

VEGETABLES—At least one serving daily of a green leafy vegetable and one serving of some other colored vegetable. Spinach, turnip tops, beet tops, cabbage, kale, chard. Carrots, green beans, peas, beets, tomatoes (fresh or canned), squash.

Many vegetables may be used raw—such as cabbage, carrots (grated), lettuce, celery, watercress, tomatoes. Other vegetables, such as turnips, onions, parsnips, cauliflower, may be used, but not to the exclusion of green leafy or other colored vegetables.

FRUIT—At least one serving daily of a fresh fruit. Oranges, bananas, apples, or other fresh fruit in season. Cooked dried fruit, such as raisins, prunes, apricots, and peaches are valuable foods and should be used frequently in addition to fresh fruits. Other cooked fruits may be given.

COD-LIVER OIL—Two to four teaspoons daily, especially in the North Temperate Zone.

In addition: Other energy and body-building foods—

BREAD—Two or three times a day; whole-grain bread at least once a day.

CEREALS—Hot cooked cereal once or twice a day, served with milk or cream.

STARCHY VEGETABLES — Potatoes, sweet potatoes, rice, barley, macaroni, or hominy once a day.

MEAT OR FISH—Fresh lean meat or fish once a day if possible.

The foods recommended for undernourished children are the same for

any age group, but the older child, especially the child in his teens, needs larger quantities of each food than does the younger child. Undernourished children of all ages should have a quart of milk; children in their teens may drink more.

SLEEP AND REST

An undernourished child should have more sleep and rest than the well-nourished child of the same age. From 2 to 6 years of age he should rest at least 1½ hours during the day and should have 12 to 13 hours of sleep at night, going to bed at 6 or 6:30 or, toward the end of this period, in some cases, at 7; during school years he should rest after lunch for half an hour and should have at least 11 to 12 hours of sleep, going to bed at 7:30 or 8 o'clock. A child in his teens who is undernourished needs 10 to 12 hours of sleep and also should rest daily after lunch. Every child should sleep in a bed by himself.

EXERCISE AND OUTDOOR PLAY

An undernourished child should play outdoors in the sun for a part of each day (except at midday in hot weather). Little is gained, however, by outdoor play on cloudy days in very cold weather. If the temperature is below freezing, young children cannot exercise enough to keep warm. Moderate play and exercise are recommended, but strenuous games and exercise may have to be avoided until the child's nutritional condition returns to normal. Purposeless running about indoors should be discouraged by providing some quiet amusement. The physician's advice should be sought with respect to the amount of exercise that is desirable.

HABITS OF EATING

Malnutrition is sometimes due solely to poor eating habits. If your child is a finicky eater and refuses foods that

he needs, especially milk and vegetables, consult your physician as to how you may help him overcome the habit.

CORRECTION OF PHYSICAL DEFECTS

Certain physical defects may interfere with a child's nutrition and will have to be corrected before the child's condition improves. A careful physical examination by a physician will be necessary to discover these defects.

PARENTS REPROVED

To the Editor: Many are the accounts of killings on the highways. We all know that we are no longer safe on the roads. There is one kind of carelessness that can be stopped. Parents could keep their children off the highways.

Just the other day two young men gave their lives saving a four-year-old child. The men had a cause to be on the highway. The child had no cause to be there, and was altogether out of its place.

There are some streets in Raleigh along which it is almost impossible to drive without hitting a child on the street skating. If parents haven't enough love for their child to keep it out of danger, then the law should take it in hand for the sake and safety of the ones that must be on the highways and streets. It is just as much carelessness to let a child play or skate on the streets and highways as it is to let a drunken driver be on them and both should be against the law. Carelessness was the cause of the death of the young men I referred to above, and carelessness is the cause of the broken bones of the child, carelessness is the cause of the sad homes, and carelessness can be stopped and it should be.

—Mrs. Fannie A. Hawkins in
News and Observer.

HEARTS

The papers are full of accounts of deaths from heart attacks. When a man is young he feels that many years of life lie ahead. Consequently he takes things easy and plans for the future. But when a man reaches middle age his ambition and his zeal increase. His mind and powers are at their best, and he plunges into his work with more enthusiasm and vigor than he did when he was younger. He also feels that his span of life is growing shorter, that he has less time in which to achieve his ambition, and this consideration also tends to increase his activity. He works too hard, gets nervous and excited, tries to do too much, and drops dead from a heart attack. My advice to such men is: Slow down! Imitate the tortoise that beat the hare by plodding along slowly and steadily. Don't worry about your heart! It is the strongest organ in your body, if you give it a chance and don't worry about it.—Charles Hooper in *New York Times*.

ATTENTION MISS ELIZABETH GRANT

If Miss Elizabeth Grant will provide us with her postoffice address, we shall be glad to send her the special items of literature which she ordered on a postal card, under date of March 10, 1936.

While we are on this subject, we want to remind our readers again that it is necessary for them to provide us with the correct signature and correct postoffice address when they write us requesting literature or other service. As these lines are written, we have in our hand a returned postal card bearing a Rich Square postmark, in which the writer is requesting literature about babies, but in which no name or address is attached.

THE AMERICAN PUBLIC HEALTH ASSOCIATION ANNOUNCES ITS SIXTY- FIFTH ANNUAL MEETING

The oldest and most powerful association of public health workers in the United States, the American Public Health Association, will convene in New Orleans, La., October 20-23 for its 65th Annual Meeting.

Drawn from every State in the Union, from Canada, Cuba and Mexico, officials from the various branches of Federal, State, City and County health departments and other agencies active in disease-prevention and health promotion will gather in New Orleans. For four days, the attention of the health and medical worlds will be focused upon the deliberations and recommendations of this band of health specialists.

The Annual Meeting of the American Public Health Association is the place where the report on the state of the nation in matters of public and personal health is presented.

Dr. Thomas A. Parran, Jr., Surgeon General of the United States Public Health Service is President-Elect of the Association and will be honored at New Orleans.

National headquarters of the American Public Health Association are 50 West 50th Street, New York, N. Y., and Dr. Reginald M. Atwater is Executive Secretary.

CORRECTION

In our March issue under the title "Hospital Care," we described briefly the organization of some of the hospital care associations which have been formed in this State during the last two or three years. We made the following statement: "All of them are organized on a commercial basis," etc.

Dr. L. B. McBrayer, secretary and treasurer of the North Carolina Medical Society, writes us that the statement is not correct. Doctor McBrayer says, "The Hospital Savings Association of North Carolina, Incorporated, has been organized by the State Medical Society and the State Hospital Association, and is strictly not for profit."

We are glad to make this correction. Our idea in making the statement was used in the sense that the profit from the enterprise would accrue to the benefit of the hospital and the beneficiary. We simply used the term loosely, and we appreciate Doctor McBrayer's setting us straight.

VALUABLE BOOK FOR PUBLIC HEALTH NURSES

The J. B. Lippincott Company of Philadelphia have recently published a book by Louise Zabriskie, registered nurse. The title is "Mother and Baby Care in Pictures." The book has much information which would be of value to nurses engaged in maternity and infancy work. The price of the book in paper cover is one dollar. It may be ordered from the publishers.

SYPHILIS CAN BE CONTROLLED

According to the best information available it is estimated that about ten per cent of the population of the United States have syphilis. It ranks third as the cause of deaths in New York City. In 1919 Sweden passed a drastic control law. That country then had six thousand active cases. In 1934 the number had dropped to 431. The essence of the control measure is that every person having the disease must report themselves to a physician for treatment until cured. Free clinics are provided for the poor; but the point is every patient must receive prompt, effective and continuous treatment until the disease is eradicated.



The Health Bulletin

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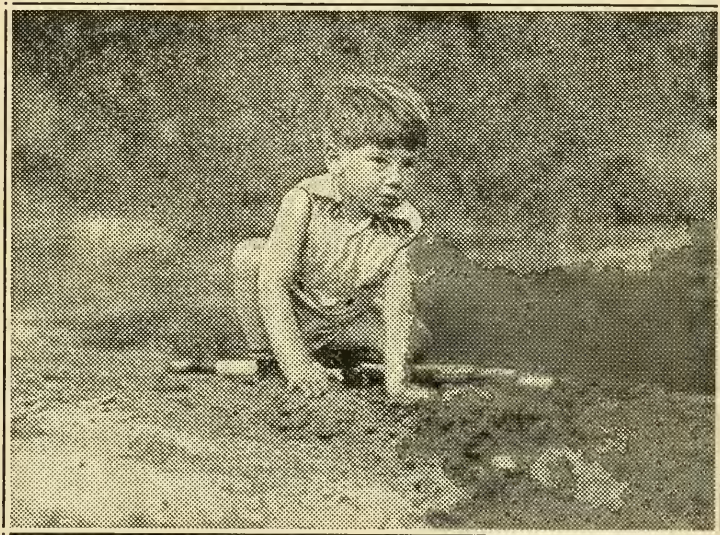
This Bulletin will be sent free to any citizen of the State upon request.

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WOOD SMETHURST, RALEIGH, N. C.

Even Now Beginning to Look at Life Beyond the Geology of the Sand Pile

Above is a picture of the young son of Mr. and Mrs. Frank Smethurst of Raleigh. Today Mr. Smethurst is Managing Editor of the News and Observer. Twenty-one years ago, when the Editor of the Health Bulletin went to work for the State Board of Health, Frank Smethurst was a reporter for the News and Observer. His "beat" covered the Board offices. During the intervening years he has done much to advance the cause of public health. Mr. and Mrs. Smethurst say that the boy is literally being raised according to Health Bulletin standards.

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FREE HEALTH LITERATURE

The State Board of Health publishes monthly THE HEALTH BULLETIN, which will be sent free to any citizen requesting it. The Board also has available for distribution without charge special literature on the following subjects. Ask for any in which you may be interested.

Adenoids and Tonsils	German Measles	Scarlet Fever
Cancer	Health Education	Smallpox
Constipation	Hookworm Disease	Teeth
Chickenpox	Infantile Paralysis	Tuberculosis
Diabetes	Influenza	Tuberculosis Placards
Diphtheria	Malaria	Typhoid Fever
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Fly Placards	Disposal Plants	Whooping Cough
	Sanitary Privies	

SPECIAL LITERATURE ON MATERNITY AND INFANCY

The following special literature on the subjects listed below will be sent free to any citizen of the State on request to the State Board of Health, Raleigh, N. C.

Prenatal Care (by Mrs. Max West)	Baby's Daily Time Cards: Under 5 months;
Prenatal Letters (series of nine monthly letters)	5 to 6 months; 7, 8, and 9 months; 10, 11, and 12 months; 1 year to 19 months;
Minimum Standards of Prenatal Care	19 months to 2 years.
Breast Feeding	Diet List: 9 to 12 months; 12 to 15 months; 15 to 24 months; 2 to 3 years; 3 to 6 years.
Infant Care. The Prevention of Infantile Diarrhea	Instructions for North Carolina Midwives
Table of Heights and Weights	

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Notes and Comment

By THE EDITOR

THE more we see, the more we hear, and the more we read, the more we feel the necessity for continual condemnation of the tendency of the people everywhere to self-medication. Instead of our emphasis as a people being placed on positive health and on the things conducive to health and happiness, our tendency is to place the emphasis on aches and pains and the drugs to relieve them. A public health nurse of wide experience in North Carolina wrote us the other day as follows:

"I am glad you wrote so emphatically in the last issue of the HEALTH BULLETIN about the dangers of children being given various drugs supposed to be for the purpose of relieving little aches and pains. That is one of my stock worries. I am bombarded continually with questions about the efficacy of headache and various other remedies. I have been amazed and startled at the large number of children who carry a pocket full of depressant drugs to school with them daily. They explain to me that they take these along in case of a headache, and that such remedies have been advised by So and So. Frequently I see a child slip a tablet in his or her mouth.

"And another thing, from the least to the largest boys, it seems to me, smoke cigarettes, and not infrequently I find the little girls smoking, too. Consequently, it seems to me I find more children underweight, with poor posture, and deficient nutrition than at any time in my work. I frequently ask small boys how and where they get the cigarettes, and usually I am told 'daddy gives them to me.' I sup-

pose these boys and girls will eventually arrive at maturity, but I fear that many of them will be poor specimens of manhood and citizens."

Our friend who wrote the above is possibly a little too pessimistic. The careful student of history may understand that in the long upward or downward climb of the human race, there have been many periods in practically all countries of the world in which morals and health were sometimes at a low ebb. Somehow there have been, so far, a sufficient number of survivors to carry on. It seems to be foolish for people to waste their time and energy and sacrifice their health in so many ways when the positive course could be pursued with so much more profit to individuals as well as the State.

In concluding this paragraph, we want to call attention again to the proved fact that self-medication is a dangerous procedure. Why, even a practicing physician, when he gets sick, does not think it wise to prescribe for himself. And physicians should certainly know more about therapeutics, and drugs and their effect on the human body than any other people in the world. If a physician, knowing the dangers of these things, refuses to trust his judgment when he is sick and in an abnormal condition, how much more important it is for the people who know nothing about the dangers to exercise some care.

THE editor of the HEALTH BULLETIN was recently privileged to attend the annual conference in Washington with the State and Provincial Health Departments and many health workers with the Surgeon General of the U. S. Public Health Service. One whole day in this conference was devoted to a discussion of the menace of venereal diseases, particularly syphilis. Two men presented papers on the program who are among the foremost physicians in the country. One was the director of the venereal disease clinic in Johns Hopkins Hospital and the other occupying the same position in the University of Virginia Medical School.

Among other things emphasized by these men, which to many people should be a startling disclosure of conditions, was the fact that the third highest cause of death in the city of New York is at present due to syphilis. Only two other diseases outrank that as a killer in the New York City mortality reports, they said. One of the hopeful features of the discussion was a description of how the country of Sweden has set about to control and eliminate this terrible disease from its borders. They explained how a syphilis control law was adopted in that country in 1919, when there were 6,000 known cases of the disease, and in 1934, as a result of this control law, the number of active cases of the disease in that country had dropped to 431.

We are concluding this paragraph by quoting from an editorial in the *Washington Daily News* in connection with a report of the meeting held at the Surgeon General's office, although we do not endorse all the proposals.

"A MAJOR MENACE"

"State health officers, at an annual conference in Washington, devoted a full day to discussion of the dread, widespread disease of syphilis. Here

are some of the things the health officers said:

"That an estimated 12,000,000 American men, women, and children suffer this affliction;

"That an estimated 3,000,000 new cases a year should be given treatment, but that only about 1,000,000 cases actually do receive treatment;

"That, in the opinion of Surgeon General Parran, new head of the U. S. Public Health Service, the control and eradication of this disease would constitute a more important contribution to society than discovery of a method of immunizing against infantile paralysis;

"That syphilis is 'one absolutely controllable disease;' that the cause and mode of spread is known; the diagnosis by blood tests is reliable, and that tried methods of treatment are effective;

"That despite the medical world's competency to combat this disease, it continues to spread because of public ignorance on the subject, because many doctors fail to recognize early symptoms and because of lack of facilities for free treatment of millions of sufferers who have not the money to buy the cure.

* * *

"Here are some of the things the health officers proposed:

"Compulsory examination of the entire population to search out the 10 per cent said to be infected;

"Providing, at public expense, clinics for free treatment on a mass scale;

"Providing, also at public expense, better laboratory service and information for private physicians;

"Educational publicity.

* * *

"Syphilis ranks with tuberculosis and cancer as a major cause of death. It causes untold misery. It denies many married couples the privilege of parenthood. It causes helpless, innocent children to be born blind or deaf.

It cripples and finally drives insane many of its luckless victims. It pollutes the wells from which posterity must spring.

"If we, as Americans, are to preserve the physical, mental and spiritual vigor of our society, it is high time that we start a conquest of this menace.

"The tragic seriousness of the problem was summarized by Dr. Joseph E.

Moore of Johns Hopkins Hospital. He said:

"If there were in this country a million cases a year of smallpox, typhoid fever, poliomyelitis, plague, meningitis, Rocky Mountain spotted fever, or any one of a dozen other infections less serious, there would be a public health war indeed. The public health official would not require to be forced into action by popular panic."

Summer Dangers for Infants and Young Children

By J. BUREN SIDBURY, M.D.

[EDITOR'S NOTE: Dr. Sidbury prepared this paper for the special Baby Edition of the Winston-Salem *Journal and Sentinel*.]

PROBABLY the greatest single responsibility in infant care is that of advising a mother when to wean her baby. Babies that are kept at the mother's breast for six months stand a much better chance of celebrating their first birthday than those artificially fed. Of the number of babies who die before their first birthday 75% are artificially fed.

Babies who are deprived of breast milk are more susceptible to infectious and contagious diseases. Besides food which they get from breast milk there is secreted in the breast milk immune bodies which give protection against many of these diseases. These immune bodies are not found in artificial feedings.

Because the baby is not gaining, or not satisfied, with the breast milk supply is no excuse for weaning. Give the baby a complementary feeding two or more times daily as needed. This feeding should follow immediately after the breast feeding and will supply sufficient added nourishment to satisfy the baby and cause proper rate of gain. Such procedures often tide over a difficult situation. This will give the mother

some needed rest and may help to re-establish a satisfactory breast milk supply. Certainly nothing can be lost by such an effort.

When it is necessary, or advisable, to wean the baby during the hot summer months, it should be done gradually. First one bottle and then two may be substituted each day for the breast feeding. This procedure may be followed for one or two weeks till the baby is weaned from the breast. This gradual change will be less likely to upset the baby.

If the baby has to be taken from the breast the important question arises, "Just what food is best for this baby at this time?" This question should always be decided by the physician and not by a layman. It is too often made on the advice of a "kind friend." The responsibility is too great to be taken lightly. Many babies are made sick by changes which were not properly supervised.

Certain principles must be carried out if the health of the baby is to be safe-guarded. Some of these may be summarized as follows:

1. All milk should be sterile, therefore free from bacteria. To accomplish this, it is especially advised that all milk be boiled from May to October and longer if the weather is hot.

2. Milk should be fresh and kept cold until used by the baby. Milk sours very quickly in hot weather, and sour, or contaminated milk will give the baby "colitis" or dysentery. Do not let milk stay on the back porch in the hot sun after being delivered. This is the mother's responsibility and not the dairyman's. Every detail must be looked after to keep the baby well.

3. All utensils used in preparation of the baby's formula must be boiled each day for five to ten minutes and kept covered to prevent contamination by flies or insects which carry disease germs.

4. When using fresh cows milk, demand Grade A milk. This carries with it a guarantee of proper inspection and supervision of the cattle, of the barns, of the dairymen and of the method of distribution of their product. All herds of cattle should be tuberculin tested as well as tested for undulant fever. Your Health Department should have this as its responsibility—to see that you get clean, undiluted, fresh milk.

5. During the summer months some preparation of lactic acid milk is probably the safest milk for the baby. It is a food that is easy to digest. It is a food which acts as a prophylactic measure against "upset bowels." It is in every way the ideal food for the baby in the summer time. Unfortunately some babies rebel against taking it. If it is started early very little trouble is encountered.

In towns where lactic acid milk is prepared by the dairy it can be delivered to you daily just as is fresh sweet milk. Where such service is not available the fresh cows milk can be boiled three minutes and cooled, and then three drops of lactic acid added to each ounce of boiled sweet milk will

make it ready for use. To this some form of sugar may be added as directed by the physician.

There will be some families who cannot get fresh cows milk. For their use one would advise evaporated milk diluted one-half with boiled water to which lactic acid may be added as was used in the boiled cows milk.

Other foods equally as safe and in certain cases more practical are some of the dried milks such as Dried Lactic Acid Milk, Klim Whole Milk, Dryco Dry Milk, S. M. A., Similac and other dried milk. These milks have the advantage of not being bulky and may be prepared simply by adding boiled water. In case of one traveling with a baby the dried milks are to be preferred. It is advisable to make as few changes as possible in the baby's milk supply. Changing from one cows milk to another cows milk in the summer is apt to upset the baby. Avoid this when possible.

6. During the summer months excessive heat and humidity are important factors in gastro-intestinal upsets. It is important therefore to keep the baby cool. Put as few clothes on the baby as is necessary for comfort. Keep the baby in the coolest room in the house and give him daily during very hot weather two or three cool tub baths for twenty or thirty minutes. He will enjoy it as well as derive much good and comfort from it.

7. The baby should be given all the boiled water he will take at any time during the hot weather. During such times do not force food. Let the baby take what he will of his prescribed diet, but not more often than four hours apart. Give the baby as few feedings in the 24 hours as will satisfy. This will avoid some "intestinal upsets." Overfeeding is much more apt to cause trouble than underfeeding. The baby will see to it that he is not underfed, or at least he will protest. A good motto to follow in the hot summer time

is "Water internally, externally, and eternally."

8. Do not be afraid to let the sun shine on the baby. The baby should get a sun bath each day if possible. The direct rays of the sun are the best health measure known to man. So the baby should be taken out of doors each day, but his eyes and face should be carefully protected from the direct sun rays by the hood of the carriage or an umbrella. Direct sun rays will prevent and cure rickets. The remedy is free. The most effective rays are those that can be obtained between 10:00 A. M. and 3:00 P. M.

Sun baths may be started with safety at 3 or 4 weeks of age. The duration at onset is to be five minutes exposure on the front of the body and five minutes exposure on the back. At first the baby may be held in the nurse's lap. The duration of the bath should be increased to 30 or 40 minutes daily, increasing one minute each day from the start of five minutes. By this means a healthy, tanned, robust baby will be assured.

9. During the summer time it is the "knee baby" or "run around baby," the

child from one to three years of age, who is more likely to have gastro-intestinal ailments. So often this child is left to his or her own devices. With the arrival of the new baby not much attention, or certainly not enough attention, is paid to this child. This is true mainly because the little baby must have the greater part of the mother's time. As a result this little fellow gets many things to eat that the mother knows nothing of and too often an upset follows. He should not be watched and supervised less than the new baby but should be given more strict supervision than ever. The reason for this is very apparent. The little baby will stay where he is put. The older baby is rarely found where he was seen two minutes before, and is always getting into something he should not.

A careful, conscientious supervision of the points brought out above will save many sorrows and heartaches and will in time help the State Health Department a great deal in its untiring efforts to reduce infant mortality in North Carolina.

Malaria Historical, Geographical and Biological Factors

By C. L. WHITE, JR., District Supervisor, Malaria Control

IT is probably that malaria has caused more suffering and disability to mankind than any other of the infections. There is no doubt that the advancement of countries lying in the Tropical and Subtropical Zones has been greatly retarded by this disease. Many historians believe that the downfall of the great Greek civilization of the Age of Pericles was due to the introduction of malaria.

In the early settlement of the United States, the menace of malaria was a factor of major importance. The first colonists of our eastern seaboard experienced a tremendous mortality in which malaria played a large part. When the second wave of migration passed across the Alleghanies after the Revolution, the pioneers who moved out into the great central plains again suffered terribly from this disease.

The first settlements were in lowlands along the river valleys, and the clearing of forests and damming of water-courses created conditions ideal for propagating malarial mosquitoes.

Today malaria occurs in a great belt around the world, covering the Tropics and Subtropics, and extending from about 40° N. latitude in the United States to 30° S. latitude in South America and Africa. In the United States this line runs from southern Pennsylvania, through Ohio, Illinois, Colorado and California; but malaria is not a very serious problem north of Kentucky or west of Oklahoma. In Europe the malaria area reaches much further north, to 60° N. latitude (in Holland and Germany).

About 300 years ago a distinguished Spanish lady, the Countess Chinchon, wife of the Governor of Peru, had an attack of fever and was cured by an extract of the bark of a local tree, used by the natives for that purpose. She sent some of this dried bark to Spain; and the general introduction of this new remedy about the year 1640 was the first important step in the history of malaria control. This extract was named cinchona, or quinine, after the Countess.

More than 200 years later, in 1880, Laveran, a French army surgeon, examined the blood of malaria patients under the microscope and discovered the germ of malaria. This germ belongs to the lowest group of one-celled animals, the protozoa. It is called a plasmodium, and there are 3 different species of plasmodia associated with 3 different types of malaria. Each germ enters a red blood cell, within which it proceeds to increase in size until it practically fills the cell. As it grows it becomes segmented. At the end of 24, 48 or 72 hours (depending on the species) each full-grown plasmodium ruptures the blood cell and splits into a number of young plasmodia, which are discharged into the blood stream

to attack a new lot of red cells. At the time of this simultaneous discharge of the young plasmodia into the circulation, the patient has his recurrent attack of chills and fever. Quinine is a specific poison for the plasmodia, which it destroys as they are set free in the blood stream. Recently, atabrine and other drugs have been used with notable success in the treatment of malaria.

It had long been noted that malaria was prevalent in swampy regions where there was much ponded water, and it was supposed that some specific poison was present in the air of such places. The word "mal-aria" means the bad-air disease. Several observers had guessed that mosquitoes might play a part in its transmission. Finally, between 1895 and 1898, Ronald Ross, an English army surgeon in India, found in the body of a mosquito what he thought might be the germ of human malaria and then—working with birds—proved that bird malaria is actually transmitted by these insects. In 1902 Ross received the Nobel Prize for Medicine for his work on malaria. In 1898 Grassi and Bignami in Italy completed the demonstration of mosquito-transmission of human malaria.

The main problem was now solved. If a mosquito of a certain type bites a person suffering from malaria, plasmodia are sucked out with the blood and reproduce in the body of the mosquito. They pass from the stomach to the salivary glands of the mosquito and, after several weeks, can be transmitted to the next person bitten by the insect. This process, however, takes place only in mosquitoes of certain species belonging to the genus *Anopheles*. The prevalence of malaria in swampy regions in Southern United States was explained by the habits of the malarial mosquito. The females of the *Anopheles* family lay their eggs in quiet water, and there the young wigglers spend their larva-hood, change

to the pupa state, and emerge from their water habitat only when they have become winged adults.

Obviously, then, malaria can be controlled by protection from mosquitoes (as by screening) or, better, by preventing the breeding of malaria-bearing mosquitoes. The most permanent results, of course, can be accomplished by removing accumulations of standing water entirely by draining them away or filling the lowlands.

Another method, where pools can not be eliminated, is to spray the water with light fuel oil, which spreads over the surface in a thin film. The mosquito wigglers need air to breathe, the layer of oil cuts off their air supply and they suffocate. In ponds which one does not wish to treat in such a way, the breeding of mosquitoes can be controlled by stocking them with top-water minnows, which eat the wigglers. However, in this method of control it is necessary to keep the edges of the ponds clean of all vegetation and floatage. By such procedures as given it has been found possible to control malaria in the United States very effectively.

When the American methods of fighting malaria were applied in Europe, they yielded much less satisfactory results. In Italy, for instance, great drainage projects were carried out, but malaria did not disappear.

Experts of the Rockefeller Foundation working in Europe at last found the answer to this apparent anomaly. The American Anophelines thrive at a high temperature and breed chiefly in pools warmed by the sun. In America, therefore, drainage controls their breeding effectively. Malarial mosquitoes of the European species, however, prefer cold water (which is the reason the European malaria zone extends so far north). They breed by preference not in warm pools but in the cooler water along the shores of ponds, rivers, canals and drainage ditches.

The control of breeding in such

streams was made possible by another discovery. It was observed in Kansas by M. A. Barber, of the Rockefeller Foundation, that, when finely powdered paris green was sprayed on the surface of the water, the Anopheles larvae would eat it and be poisoned. As a result of treating mosquito-breeding waters with paris green, areas like the Roman Campagna, which have for centuries been desolated by malaria, are now almost completely free from the disease. This method of control, which is called larviciding, is also used successfully in the United States.

Another major mystery remained to be solved. In certain regions in Denmark, in France, in Italy, there were abundant malarial mosquitoes but no malaria. The area about Naples is a good example. Anopheles mosquitoes were everywhere but, although malaria was a scourge to the north and to the south, in this particular belt the disease was very rare. It was noted that the Anopheles mosquitoes in these regions did not appear to bite human beings readily but fed by preference on the stabled cattle. This clue was followed by catching mosquitoes which were full of blood and testing the blood to see if it was of human or bovine origin. It was found that the Anopheles mosquitoes in the areas in question actually lived almost wholly on the blood of cattle.

In the story of malaria we have an admirable example of the complexity of biological adaptation and of the way in which a knowledge of biology can be turned to practical account. The relation of the three types of malarial parasites to their insect and mammalian hosts and the characteristic breeding places of particular species of Anopheles have formed a fascinating field of scientific study. The control of mosquitoes by drainage, by stocking pools with fish, by oiling and larviciding represents one of the major triumphs of modern science.

Taking Some of the Guess Work Out of Life

By MRS. J. HENRY HIGHSMITH

NO procedure has been found more beneficial for staying off disabling diseases and lifting loads of worry than the periodic physical health examination. It may not be the most generally popular means of preventing disease and illness, but it is one of the most effective and certainly inexpensive. Physicians and health workers look forward to the day when the physical health examinations will be the more generally practiced measure of maintaining personal health and efficiency, and incidentally of increasing the sum total of human happiness.

Twenty years ago a physical examination at regular intervals was especially advised as a means of staying off the ailments of old age — the degenerative diseases, mainly of the heart, arteries and kidneys. This was to avoid premature breakdowns and other dreaded conditions feared for old age. But more positive health and a greater degree of assurance is wanted today. One is not willing to wait till he feels old age creeping on to ascertain whether or not he is sound physically. He considers health too valuable an asset to take chances on losing it, especially when it is no more than a matter of neglect or delay.

Young people are taking this attitude toward health and are doing something about it. They make friends with their doctor, seek his counsel and relieve their minds of further worry. They are courageous. They want to know the facts about themselves so as to proceed intelligently with their plans, without running risks or depending on guess-work. That is the enlightened spirit of modern youth, and because of

this intelligence and wholesome attitude the health, happiness and efficiency of tomorrow's citizens can be counted on to surpass that of today.

Another good health forecast for the future is that babies and young children are being taught to consider the doctor as their friend, as the guardian of their health. This friendly relationship will not only stand them in good stead while they are babies and young children, but it will be a comfort and protection in maturity and on through the years.

A close friendly relationship with one's family physician—choose one whom you can hold in the highest esteem, and consult regularly and confidently—is the more modern and sensible method of keeping one's self in fine shape physically. It is in keeping with the more intelligent health standards and practices of today. The good physician who is made to feel that he is held accountable for the health and efficiency of his patients, will study to know his patients thoroughly, so as to advise competently. The plan works advantageously to both parties.

EVERY DAY A NEW BEGINNING

Finish every day and be done with it. You have done what you could. Some blunders and absurdities no doubt crept in; forget them as soon as you can. Tomorrow is a new day; begin it well and serenely and with too high spirit to be cumbered with your old nonsense. This day is all that is good and fair. It is too dear, with its hopes and invitations, to waste a moment on the yesterdays.—Twin City Advertisers, Winooski, Vt.

Department for Crippled Children Established

[Extracts from Annual Report of the State Health Officer]

THE Department for Crippled Children was established as a service of the State Board of Health on April 1, 1936, for the purpose of co-ordinating and broadening activities in the State in behalf of the crippled child. Its establishment is in furtherance of plans developed over a period of several months to provide a means of cooperating with the Crippled Children's Department of the Children's Bureau, United States Department of Labor, in the administration of the provisions of the Social Security Act. It has been developed in conjunction with the North Carolina Annual Plan for Crippled Children, a brief outline of which follows:

THE NORTH CAROLINA PLAN

A. Objectives

1. Locate and register all crippled children in the State.
2. Effect and facilitate treatment of these children.
3. Follow up these children until the age of twenty-one years.

B. Description of Plan

1. Financial participation by the State through appropriations for crippled children.

- a. N. C. Orthopaedic Hospital (\$96,717).
- b. State Board of Health Orthopaedic Clinics (\$6,000).

2. Official State Agency — State Board of Health

- a. A Commission composed of representatives of the North Carolina Orthopaedic Hospital and the Medical, Public Health, Nursing, Social Welfare, Vocational Education, and Civic leadership of the State has been organized to act in an advisory capacity to the State Agency in its program respecting the crippled

child and to promote the co-operation of the Medical, Health and Welfare groups. Meetings will be held twice a year or more often if the occasion arises.

- b. Administrative activities for the needy crippled child will entail the operation of established clinics, cooperation with local Health and Welfare officials, providing hospital care and treatment and convalescent care.
- c. The plan provides for the establishment of a department of the State Board of Health to be known as the Department for Crippled Children, under a medical director and staffed by a State Supervisor, two Field Supervisors, trained and experienced in the care of the crippled child, and a whole-time Secretary.
- d. The twelve existing State clinics will continue to be operated under the supervision of the State Board of Health. Local Advisory Committees will serve each clinic for the purpose of promoting the work of these clinics which are operated as units of the State Plan.

C. The Needs for Crippled Children

The greatest need for the care of the crippled children in North Carolina is the establishing of additional hospital beds. The North Carolina Orthopaedic Hospital cannot care for the institutional needs of all the crippled children in the State at the present time. There are over 1,200 crippled children who have been examined and who are waiting for hospital care at this time. The total number of crippled children under 21 in this State is about 20,000 (figured on the basis of 6 per 1,000 population). It is estimated that from 75 to 90 per cent of this number are in need of some type of orthopaedic treatment.

OBJECTIVES OF DEPARTMENT OF CRIPPLED CHILDREN

In assuming our duties in the Department we accept, as an Agency of the State, the responsibility of determining what are the needs of the crippled child and of interpreting these needs to the State and Federal Governments. In turn, we assume the responsibility of interpreting to the community the services offered by the State and Federal Governments for meeting the needs of the crippled child and undertake to cause these services to be applied to the needs of the individual.

It appears essential, therefore, that the Department undertake these new responsibilities by contemplating its problem and beginning its activities with very definite objectives in view. The problem, simply stated, involves those effects which from birth, injury, or disease cause children to suffer structural physical handicaps calculated to hinder their adjustment to the ordinary mode of life and achievement. In approaching this problem and in the solution of it, the following outline of the Department's objectives is set forth:

- A. To locate crippled children.
 1. Establish a registration bureau in the State Department of Health.
 2. Transcribe existing registration of cripples.
 - a. State clinic registration, 1925-1936.
 - b. American Legion Child Welfare Survey, 1934.
 - c. Registrations at semi-public and private clinics operated in the State.
 3. Utilize services of local Health, Welfare, and School officials in the location and registration of crippled children.
- B. To secure expert diagnosis for these children in all parts of the State.
 1. Established clinics
 - a. Twelve State clinics.
 - b. Two N. C. Orthopaedic Hospital Clinics.
 - c. Other clinics (under semi-public or private auspices).
 2. Promote diagnostic clinics in isolated rural sections where need is indicated.
- C. To provide expert treatment and hospital care.
 1. Clinics
 - a. Minor corrections and treatments.
 - b. Post-operative treatment and hospital care.
 2. Hospital care.
 - a. N. C. Orthopaedic Hospital for children under sixteen years of age.
 - b. Selected general hospitals.
- D. To establish a field supervisory and follow-up service.
 1. Locate and refer crippled children to clinics.
 2. Assist in clinical procedures.
 3. Observe and supervise care of patient in the home following treatment in clinic and hospital.
 4. Safeguard results achieved in the clinical and hospital care of patients.
- E. Engender public interest in the problem of the crippled child and encourage the recognition of its responsibility to create opportunities for the development of this group into as normal and useful life as possible.
 1. Through local Health and Welfare agencies.
 2. Through civic organizations.
 3. Through the study of problems pertaining to the crippled child, collection of data and the compilation of such information.
 4. Preparation and publication of reports and statistics.

Department of Industrial Hygiene

By CARL V. REYNOLDS, M.D., *State Health Officer*

[Extracts from Annual Report]

DURING the past year work in industrial hygiene has been inaugurated to extend the benefits of preventive medicine to the million and a quarter North Carolinians who are engaged in industry. The initiation of this important public health activity was made possible by the State Industrial Commission which employed for the purpose funds appropriated for the administration of the Occupational Disease Act. The continuation and broadening of this activity is assured by an additional appropriation of money received from Social Security Funds allotted to the U. S. Public Health Service, for distribution to the several states.

Although several other states have engaged in industrial hygiene work on a limited basis, North Carolina is the first State to undertake a program sufficiently comprehensive to include pre-employment examination of workers and engineering and medical studies of plants. The importance of such a program is evidenced by the fact that 18 other states are engaged in or are committed to engage in this work. A happy situation exists in North Carolina in that since its establishment our Department of Industrial Hygiene has had the hearty cooperation of the State departments concerned respectively with labor, insurance, and workmen's compensation.

By far the greatest occupational disease hazards in the State are those created by siliceous dusts, exposure to which results in the development of asbestosis and silicosis complicated with tuberculosis. The first undertaking of the new Department, therefore, was a survey to determine the extent of the dust problem. During the fall of the past year 103 plants were visited. There were 4,406 persons employed in

these establishments, and of this number 60% were found to be exposed to siliceous dust hazards. Measures for the control of dust were found to be provided for only 12% of the workers that are exposed to such hazards, and even they are not protected since in many instances such control devices as were found were either not regularly used or were inefficient. More than 75% of the workers in the granite, mica, feldspar, talc and asbestos textile industries are exposed to siliceous dust hazards. The survey covered only a portion of the siliceous dust industries of the State, but enough plants were visited to make the results representative of conditions existing generally in the dusty trades.

In addition to the preliminary survey, the Department of Industrial Hygiene cooperated with the U. S. Public Health Service in making a detailed study of the occupational disease hazards in five asbestos textile plants. Their investigation involved the clinical and X-ray examination of 500 workers and a study of their working environments including a determination of the number and size of dust particles in the air. Following this research, our personnel made a similar study of a granite cutting establishment involving 40 people.

The work of the department is to consist of plant studies and pre-employment examination of workers. The plant studies will include a clinical and X-Ray examination of all employees, and an engineering and clinical evaluation of their environment. The pre-employment examination of workers will be confined to those industries which have been designated as subjecting the workers to siliceous dusts. It will include X-ray and clinical exami-

nations of prospective employees. Much of this work will be performed in industries about which nothing is known with respect to the occupational dis-

ease hazards to which workers are subjected. The Department should produce results which will be of general value to both industry and medicine.

Division of Epidemiology

By CARL V. REYNOLDS, M.D., *State Health Officer*

[Extracts from Annual Report]

IF a conquest against an infectious or curable disease that is controllable is successful we must have the concerted support of organized medicine, the public health personnel, interested social workers, and the press to impress upon the people the necessity of taking advantage of opportunities available to them. It must be remembered that our people are not receiving or accepting protective agencies that are available. Smallpox, diphtheria and typhoid fever are great examples of communicable diseases that could be determined. Tuberculosis certainly could be reduced to a minor consequence.

The one outstanding preventable disease that challenges the ingenuity of the medical profession, and particularly public health officials, is the control of syphilis—a controllable disease that is fast becoming the “captain of death.”

We, as physicians, should report our cases promptly and insist upon the infected cases being treated until cured. We should seek the original source of infection and cause him or her to be treated. We should forget *syphilis* as a loathsome and unmentionable venereal disease and classify it as an inherited or accidental infectious disease to be treated and controlled by medicine available as any other communicable disease. We should make known in no uncertain terms the dangers arising from lack of control, and it is the duty of the press and radio to broadcast this information. A determined and concerted action through

this informative group will do away with tabooing of such important information.

The prevention of venereal disease in Sweden, Denmark, Norway and Great Britain is making grand and telling advancement. The law of control was established in Sweden in 1919. In Sweden's six million population 6,000 new cases were reported in 1919; 431 in 1934.

During the last year about a fourth of the new cases were infected abroad. Of 431 cases 110 occurred in Stockholm, 212 in other cities containing a total population of 1,500,000 inhabitants and 109 cases were in rural districts containing a population of four million inhabitants.

I shall now give a short account of the requirements of the law against venereal disease in Sweden for your consideration and thought. The law contains the following principal points:

“1. Every person suffering from venereal disease must submit to treatment by a physician and must follow his directions.

“2. Every such person has the right, irrespective of the size of his income, to obtain free medical treatment and medicine, in case he is not being treated by a private physician. This includes free injections, free serologic examinations, as well as free certificates required by the public health authorities as to complete recovery or continued treatment. Hospitalization in a special general ward is also furnished free of charge.

"3. Every physician treating a new case of venereal disease must try to obtain information about the source of infection.

"4. Against patients, who do not properly follow up their treatment, and against individuals identified as the source of infection but unwilling to come to treatment, certain compulsory measures may be taken.

"5. A person who knows that he or she suffers from venereal disease and who by carelessness causes its transmission, is subject to punishment of a severity up to forced labor.

"6. Every marriage partner prior to obtaining a marriage license has to sign a statement certifying his or her freedom from venereal disease in a contagious stage.

"7. The local public health authorities must publish information about the existence of the clinics for the treatment of venereal disease."

The Division of Epidemiology expects to add to its staff a competent physician to direct the venereal disease control program, which is to be developed through Social Security funds. The details of the plans for this program are to be worked out later. Suitable motion picture equipment, projector and films, have been purchased to augment this work.

The North Carolina State Board of Health, in cooperation with the Rockefeller Foundation and Vanderbilt University, is conducting an intestinal parasite survey, especially for the purpose of determining the number infested with hookworm. Seventy of the 100 counties in North Carolina are to participate in the survey.

The encouragement of better reporting of the various notifiable diseases is an aim of the central office. If control measures are definitely known, delay in reporting would cause a loss of valuable time in the application of these measures during the time of an increased prevalence of any one of

these diseases. For example, during our poliomyelitis epidemic, had we had definite known measures to control the disease, this office would have been greatly handicapped in applying such measures due to the fact that the average delay in reporting cases was between three and four weeks.

The services of the Director of the Division are available for consultation relative to any unusual disease situation.

BEWARE OF PERSISTENT HOARSENESS

A recent bulletin of the American Society for the Control of Cancer warns against persistent hoarseness as a serious symptom. When hoarseness is present, the bulletin says, the symptom is of such serious significance that its cause should be determined in all cases by a thorough and competent examination of the larynx. In the young and occasionally in the middle-aged or old, it may be due to benign growths of the larynx, but if there are no growths and hoarseness continues, particularly in the middle-aged or old, it most likely means the beginning of cancer, tuberculosis or some condition that demands immediate attention.

Successful treatment of cancer of the throat depends, like treatment for all other cancers, on early diagnosis. The longer the delay in making the diagnosis and beginning treatment, the fewer the chances that the treatment will be beneficial.

Cancer is not the dread that it once was. As a matter of fact there are some diseases less hopeful and more to be dreaded than cancer. Early diagnosis and treatment have placed this disease in the more hopeful group, and the large number of patients which every one knows who have been treated and made well is proof that there is hope for cancer, the hope being in having treatment during the first stages of the disease.

Summer Pleasures and Summer Safeties

JUNE ushers in summertime, vacation, and pleasure time. Plans will be made this month for all sorts of recreational sports and vacation pleasures for the young and the old. There will be camps for the teen-age boys and girls, the beach for an older group, the mountains for those who want a change with rest, quiet and a delightful climate, and only the baby will be left at home. That is just as it should be, for literally speaking home is the best and safest place for babies in summer.

The possible benefits for camp life for children have been generally recognized, and camps are now available to almost every boy and girl. The outdoor life, the regulated program of play, exercise and rest, the instruction in games, manual arts and certain helpful techniques, and the opportunity to live close to nature should be of great benefit to the child who has been confined to books and school routine all winter.

But care should be taken to choose a camp that is reasonably safe from a health point of view—one that has the approval of the State Board of Health. While this approval is no guarantee against infection and illness, it does indicate that the camp has complied with certain regulations that are intended to safeguard the camper's health. Briefly, the safeguards are these: The camp is located on normally dry ground, having good drainage whose general surroundings are favorable to maintaining health and sanitation. It is remote from fly and mosquito breeding places, and is kept free of piles of refuse, garbage and other kinds of filth. Its water, milk and food supply meet the requirements prescribed by the State and local health departments. Its sleeping quarters are clean, screened, free of vermin, and provided with clean bedding. Means of sewage and waste disposal must be in accordance with regulations prescribed by the State Board of Health. And swimming, bathing or wading in any stream, pond or lake which receives sewage, or is a potential source of danger is prohibited.

Parents whose children are going to camp this summer are advised to know whether or not the camp in question has been approved by the State Board of Health, and to know also something about the medical supervision the camp will have, if any.

For the beach goers, we would not be joy-killers, but there are three dangers that prove to be every year all the way from serious to fatal. The least of these is excessive sunburn that is not only painful but carries the risk of becoming infected. The second is the danger of drowning, which, however, is met with more frequently in rivers, ponds and inland waters rather than at the ocean front. The third danger is connected with returning late at night when tired out from bathing and dancing and when no one is mentally or physically capable of safely driving an automobile for fifty or a hundred miles. Some of the most tragic deaths met in connection with vacationing in past summers have been at the hands of physically exhausted drivers who fall asleep at the wheel. While the automobile is always a menace to be reckoned with, it is doubly hazardous under such circumstances.

Apparently, parents of young children are left out of the vacation picture. They themselves know that babies and young children fare best at home, in summer, in their cool play suits, and with their accustomed playthings and play places, but they nevertheless feel the need of a change, and think they too are entitled to a little diversion and rest. They are! But how to get it, and what price to pay for it is the question. The baby's health and well being must be considered, but there are a number of ways parents can have diversion and a change of scene. Short trips by bus, auto or train for a day or week-end are possible for most people, these with or without the children. Few people have exhausted all the places nearby that will afford visiting and learning something from, and very few are familiar with all the spots of natural beauty and interest of their immediate vicinity. A day or two at a time spent in the woods, or by some lake where swimming, fishing, or picnicing may be enjoyed is not a bad vacation after all.



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Currituck County Group

Above is a picture of Dr. W. T. Griggs and a group of pre-school children at Powell's Point, Currituck County. Dr. Griggs found two of these children without physical defects. All of them had been immunized against smallpox and diphtheria. Most of them had been immunized in infancy against diphtheria by the family physician. We are indebted to Miss Idell Buchan, for many years the efficient County health nurse, for the picture.

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FREE HEALTH LITERATURE

The State Board of Health publishes monthly **THE HEALTH BULLETIN**, which will be sent free to any citizen requesting it. The Board also has available for distribution without charge special literature on the following subjects. Ask for any in which you may be interested.

Adenoids and Tonsils
 Cancer
 Constipation
 Chickenpox
 Diabetes
 Diphtheria
 Don't Spit Placards
 Eyes
 Flies
 Fly Placards

German Measles
 Health Education
 Hookworm Disease
 Infantile Paralysis
 Influenza
 Malaria
 Measles
 Pellagra
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 Tuberculosis Placards
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 Typhoid Placards
 Venereal Diseases
 Water Supplies
 Whooping Cough

SPECIAL LITERATURE ON MATERNITY AND INFANCY

The following special literature on the subjects listed below will be sent free to any citizen of the State on request to the State Board of Health, Raleigh, N. C.

Prenatal Care (by Mrs. Max West)
 Prenatal Letters (series of nine monthly letters)
 Minimum Standards of Prenatal Care
 Breast Feeding
 Infant Care. The Prevention of Infantile Diarrhea
 Table of Heights and Weights

Baby's Daily Time Cards: Under 5 months; 5 to 6 months; 7, 8, and 9 months; 10, 11, and 12 months; 1 year to 19 months; 19 months to 2 years.
 Diet List: 9 to 12 months; 12 to 15 months; 15 to 24 months; 2 to 3 years; 3 to 6 years.
 Instructions for North Carolina Midwives

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Notes and Comment

By THE EDITOR

AS a rule, most physicians advise young folks under twenty-one years of age to abstain from the use of tobacco in any form, particularly cigarette smoking. Physicians also advise every one, regardless of age, against smoking to excess.

Since the women and girls have taken up the habit of smoking, physicians are probably asked more frequently to define what is meant by "excessive smoking." Different doctors have different replies to this question. Quite a number of physicians advise that when a person has to stop in the middle of any active duty to light a cigarette and take a few puffs before going on, or to stop in the middle of a meal to light up and smoke, it may be termed "excessive smoking," which is detrimental to such an individual's health. The editor of the HEALTH BULLETIN holds to this view. While he has never used tobacco in any form, he looks on it with a degree of tolerance which the facts justify. He feels, however, that all about the evidences of excessive smoking may be plainly seen.

Some time ago at a conference in Washington, attended by a score of health officials from different states, among the number was a woman doctor from a western state. It was a business conference, and many vital questions concerning the health agencies of the states involved were being discussed. The conference lasted about two hours. The editor of the HEALTH BULLETIN was in attendance,

and he occupied a position around the large conference table directly opposite from this woman physician, an attractive middle-aged woman of apparently fine intellectual capacity, but probably the most "nervous" individual this particular editor has ever looked upon. In the two-hour conference she smoked one cigarette after another, lighting a new one from the stub of a discarded one, and then reached out for more. This evidenced smoking to excess. Such an individual must be a pain even to herself, let alone her family.

In the expansion of public health service in North Carolina made possible through funds available through the social security legislation at Washington, the State Board of Health has been able to assist in the employment of several additional nurses. These nurses are to go out and be attached to the counties, either the whole-time health departments or working under direct supervision from this office. Their work is to be that of general public health nurses, but many of them must work almost exclusively with women and children. It has become necessary to send some of these young nurse applicants off for a special course of four months training in an institution located outside the State. An effort was made here to select the most capable and promising young women out of the large group of applicants qualified to take the course. At least one young nurse had to be

turned down on account of her habit of excessive cigarette smoking. While waiting in the ante-room to see the doctor in charge of selections at the Board office here one day, she was observed to be smoking one cigarette after another. This prompted the head of the department to make a little further investigation, going so far as to obtain from a former employer of that young woman a statement as to her qualifications and habits. The reply was prompt, to the effect that she was an intelligent, fine, capable young woman, but had to be let out of the other service because of her habit of excessive smoking. Her employer stated that she would have to stop in the middle of preparation to give a hypodermic injection for the relief of pain, lay the syringe down, and light a cigarette and take a puff or two before going on and finishing the job for the suffering patient.

This story is mentioned here in this connection simply to serve as a warning to the young girls and women who have so recently become addicted to the habit of cigarette smoking. The men, having been accustomed to smoking for the most part a long time, are not so likely to smoke to excess as women, to whom the experience is new. However, many men, as may be observed around in public gatherings, do smoke excessively. The habit is costly and, like any other habit, grows on one, and should be controlled strictly or abandoned.

No one yet knows what effect, if any, this excessive smoking on the part of girls and women will have on the younger generation to be born from now on. Time alone can tell. There is not enough scientific evidence available from countries in which women have been smoking to excess for some time, in such, for instance, as Mexico—that is, certain classes of women, to make a prediction safe or accurate. For girls and women, however, as boys

and young men, who have to go out and look jobs and give satisfactory service, it would seem foolish in the extreme to acquire a habit that would militate against satisfactory service as well as be detrimental to health.

The advice of the State Board of Health to girls and women and to boys who have not yet acquired the habit would be to let it alone; and to those who have already assumed the habit of smoking like veteran men, that they make an effort to control their newly acquired habit.

* * *

WE take pleasure in recording the fact that so far this summer there are no signs whatever of the return of infantile paralysis in epidemic form as was the case in North Carolina in 1935. In May, 1935, there were 44 cases of infantile paralysis reported to the State Board of Health. In the month of May this year only 6 cases were reported. The health officials do not look for the return of the disease in abnormal proportion this year. Consequently, all the boys and girls may make their preparations to attend camp anywhere they like in the State this summer. Outsiders may be invited in and urged to come, and visitors from other states will find health conditions just as safe as ever before the cases here last year, and as they would find in any average state.

However, boys and girls, particularly those who are going off to camp this summer, and all persons who are making the habit of attending picnics and making daily visits to various resorts in the State, should be protected against typhoid fever. All of them should be immunized if they have not had the immunizing treatment within three years at least. Every two years is better. They should also pick out the kind of camp, if they expect to stay some time, or the kind of resort for a vacation, that has voluntarily

requested and has the approval of the State Board of Health as to their sanitary arrangement and their health conditions. For the boys and girls attending a camp for a prolonged period, say, one or two months, they should certainly select a camp with a physician on the staff, or at least a competent trained nurse and with a physician extremely close by whose services may be obtained on call.

The parents of the boys and girls sent off to camp should make every reasonable investigation of the camp management in so far as health provisions are concerned before letting their sons or daughters go to any camp, even for as short a time as four or six weeks.

* * *

WE have mentioned in these columns before this year the fact that there seems to be a trend for an increase in the prevalence of pellagra. We would like to call attention here again to the fact that 49 cases were reported for the week ending May 30th against 25 cases for the same week in 1935. Naturally reports for one week do not offer any great significance, but it is an indication of what may be expected unless every effort is made throughout the State to combat this disease. Preventive measures are simple, but require constant application. Any relaxation in vigilance on the part of the population as a whole will mean an increase in cases and deaths before the year is out. It is hoped that this particular week in May simply represents an unusual occurrence and that the cases and deaths may be fewer this year than last.

Since the above was written figures compiled in the department of epidemiology show that 302 cases of pellagra have been reported for the first five months of this year as against 223 for the same time last year—an increase of 79 cases. This increase tells

one of two sad stories—that the people of the State are too poor to shift for themselves and get sufficient food to maintain health, or they are too ignorant and indifferent to their health needs to make an effort to cook and eat the right food.

* * *

WE would like right here to impress upon our people the importance of keeping down fear this summer. Fear of wars and rumors of wars, fear of political results, fear of pestilences and famine, fear of drought and flood, fear of infantile paralysis or measles or pellagra, in fact, fear of anything mortal should be avoided. The tempo of living is so fast, the summer in North Carolina should be the time to build up worn-out nerves which are sending so many women particularly to hospitals. Outdoor living can be indulged in in the summer. The long hours of the day should be divided so as to provide plenty of relaxation and plenty of time for resumption of the normal quiet social contacts that make the "good old days" so much remembered by the older generation at present. For those who have to take their vacations in their homes or back yards or fields and farms or on their own premises instead of trotting off to some kind of resort, the summer days should be the happiest of the year.

But, to repeat, fear of everything should be avoided in so far as possible. In this connection the editor recalls a very dear relative of other days. He had one expression—"all dangers are not death"—that made a lasting impression on our young mind, although he had possibly more troubles than any other dozen men of his acquaintance, and more varied kinds of troubles. His health, among other things, was not good, and yet he had a cheerful outlook which went far to make his life a success.

New Hope Found for Stutterers

Baffling Old Disease Yields to Mental, Physical and Social Treatment

By MRS. J. HENRY HIGHSMITH

STUTTERING, which has been called a "pernicious living thorn in the flesh" and is one of the oldest diseases known, is not to remain one of the unconquered maladies that afflict mankind. It is now yielding to treatment as the conditions and environments causing it are understood, changed or removed.

Dr. James S. Greene, medical director for the National Hospital for Speech Disorders in New York City, has materially advanced the knowledge of the cause and cure of stuttering during the past seventeen years in which his institution for the treatment of speech disorders has handled 15,000 cases of stuttering and in addition several thousands of other speech defectives.

Stutterers, he says, are not speech defectives as generally understood. They can all speak normally under certain conditions. Their intermittent spasmodic speech is not the result of some defective speech organism, but is conditioned by highly emotionalized states of mind. The adult stutterer usually gives a history of having been a nervous, fearful child, often living in a parental atmosphere surcharged with nervous tension. A nervous child living in a home with high-strung nervous parents, he says, is fertile soil for producing the stutterer-type of personality.

According to Dr. Greene, the treatment of stuttering has always been a baffling task because the basic problem of the stutterer has not been fully understood. But opinions emanating from different points of view and from different psychologists have now centered on the fact that stuttering is an emotional personality problem, and

consequently, successful treatment must start from reshaping the patient's mental and emotional processes. This naturally is a complicated process calling for medical, psychologic, reeducational and social measures, and employing the group approach. The purpose is to reorganize the stutterer, and start him with a new chain of emotions and mental reactions.

An effective means of treatment employed by Dr. Greene is creating for his patients a special atmosphere in which informality, encouragement and sympathy hold sway, and in which there is calm and peace—perhaps the first mental and spiritual calm the patient has ever known. In such an atmosphere old habits of a nonsocial, egocentric, fearful individual are broken down, and symptoms which complement his stuttering speech respond to new and wholesome suggestions.

In this new environment, the patient emerges from his introverted shell, and takes on a feeling of confidence and belief in himself. He sooner or later gets his first hold of confidence in his speech situation, and finds himself adjusted to a new environment of calm assurance and emotional control.

It is safe to conclude from the foregoing diagnosis and treatment that there is much parents can do to prevent stuttering. The environment of the nervous child, especially its home and family life should be made as tranquil and normal as possible. Lack of emotional control seems to play an important part in producing stuttering; therefore control of the emotions and avoidance of excitable conditions are advised as measures against this old disease.

“Food Poisoning”

(Third Article on Subject)

By MARY S. BATCHELOR, *State Board of Health*

WHILE cases of food poisoning are not so common as to cause a great deal of alarm, at this season of the year, when hot weather is upon us, when picnics abound, and cold food is eaten in preference to hot, it is well perhaps to sound a warning that such cases occur much more frequently than is generally supposed.

In a small town of the State during last summer, one of the ladies of the town entertained at a large party. A great many of the younger bridge-playing set were invited and all agreed that it was a very delightful afternoon. However, by the next morning, most of the guests, who had passed miserable and sleepless nights, felt quite differently. As is usual in small towns, by the following afternoon practically the entire population of the town knew that a great many of the guests who had partaken of the refreshments, as well as the thoroughly embarrassed hostess, had suffered the greater part of the night and were still far from being comfortable. None of the victims were seriously ill, though the majority of them were extremely uncomfortable, and the occurrence was soon forgotten, though it is doubtful if the unfortunate hostess will ever feel the same with regard to entertaining.

Of course there was a great deal of conjecture, immediately following the party, as to which of the various dainties had caused the trouble. Some of the sufferers were quite positive that the shellfish salad was responsible; others felt equally sure that it was the cake. Since no investigation was made, one guess was probably as good as the other. However, all of the sufferers agreed that the party food was to blame, though some insisted that they suffered from “ptomain poisoning” and

others from “fish poisoning.” Both groups were probably wrong, since real ptomain poisoning is exceedingly rare, and food infection is the same whatever the offending food may be.

While it is rarely safe to make a diagnosis without a careful investigation, this would appear to have been a typical case of what, for want of a better term, is called “food poisoning.” This is by no means an uncommon occurrence during hot weather, particularly where the foods involved are prepared and allowed to stand for some time without proper refrigeration, allowing ample opportunity for the growth of bacteria.

Food poisoning is a term which is used to describe an acute attack of illness, generally associated with nausea, vomiting, and diarrhea, which may be attributed to the consumption of food containing harmful properties. The attacks may vary in severity from light cases, attended only by mild nausea and diarrhea, to extreme cases with fatal results. Usually, however, the attack is over in a few days. The severity of the case probably depends upon the number of bacteria ingested, as well as the individual's resistance to the infection.

To the average individual the term “food poisoning” immediately brings to mind a picture of decomposed or putrefied food. However, it should be understood that the chief cause of food poisoning is not decomposed food, but is rather food which is infected with an organism closely related to the typhoid bacillus, called the Gartner bacillus. Even though it has been proven that in the majority of outbreaks of food poisoning the food affected is not altered in appearance, taste, or smell, the idea still persists that “poisonous” food

must be tainted. It should be remembered that it is as impossible to detect the presence of the Gartner bacillus in food as it is to detect typhoid, dysentery, or cholera infection in meat, milk, or water, without scientific aid.

In his book, "Preventive Medicine and Hygiene", Dr. Rosenau tells the story of an outbreak of food poisoning in Ghent, in which a veterinarian, who held the office of slaughterhouse inspector, was so certain that the suspected meat, in the absence of any abnormal signs, could have no connection with the trouble, that he ate several pieces of it to demonstrate its harmlessness. Dr. Rosenau says further: "we admire his confidence, but learn a lesson from his tragic story." The veterinary surgeon was attacked with severe cholera-like symptoms, and died five days later, the Gartner bacillus being recovered postmortem.

The bacilli of the Gartner group may be transmitted to food in different ways. In the case of infected meats, the organism may be present in the flesh of the animal before it is killed. On the other hand, the meat may be from animals that are perfectly healthy, yet may be contaminated by the hands or equipment of a butcher who has just handled a diseased carcass. For these reasons, all meat should be subjected to rigid antemortem and postmortem inspections by persons skilled in this line. Absolute cleanliness should be practiced in butchering, handling, storing, or transporting meats or meat products. It should also be remembered that prepared meat products such as sausages of various kinds, meat pies, liver patties, and so on are particular offenders in the realm of food poisoning.

Common gray rats and mice harbor this infection. Abhorrent as it may seem, there is abundant opportunity for contamination by rat and mice feces in butcher shops, refrigerator plants, in restaurants, cafes, and homes.

Transmission by means of rats and mice is perhaps the most common method of contamination. Such contamination should be scrupulously guarded against in all establishments in which food is handled, whether in its raw state, or after it has been prepared for human consumption.

While meat is the chief offender in cases of food poisoning, there is scarcely a food which is immune. Of course foods which require a great deal of handling in preparation for eating are most likely to be contaminated. Likewise, foods which are prepared for hours before the time for consumption and allowed to stand without proper refrigeration not only run the risk of being contaminated by mice and rats, but also allow for the multiplication of vast quantities of bacteria. For this reason, unless especial precautions are taken, foods which are prepared for picnics or for banquets at which large numbers of people are served may be dangerous.

All authorities agree that the prevention of food infection starts with the meat, or slaughterhouse, inspector. A careful meat inspection service is a sanitary safeguard, not only with regard to infection with the Gartner bacillus, but in relation to other parasitic infections. Absolute cleanliness on the part of the butcher and his assistants, acts as a further protection. However, thorough cooking is the ultimate safeguard. Foods which are adequately cooked and eaten immediately can rarely be accused of causing trouble.

Refrigeration plays an important part in assuring us of the safety of our foods. Cleanliness and thorough cooking may have little value where foods are improperly refrigerated. In this connection, I should like to tell you of an outbreak of food infection which occurred in the western part of the State last year, in which a dish of

chicken salad was responsible for the trouble.

As it happened, a large number of women in a certain boarding house partook of chicken salad at the evening meal, and then drove to a nearby town to attend a moving picture. During the course of the picture, they were attacked with severe cramps which necessitated a hurried departure. In this case, possibly because of the serious illness of one of the victims, a careful investigation was made. For some time the salad was regarded as being free from suspicion because of the fact that as soon as it had been prepared it had been placed within a mechanical refrigerator. All of the people involved were quite certain that it could not have been responsible. However, upon further investigation, it was found that the mechanical refrigerator was at fault. Instead of having a temperature of fifty degrees or below, its actual temperature was ninety degrees; instead of refrigerating it was acting as an incubator and actually promoting the rapid growth of bacteria. Following its proper adjustment, no further trouble was experienced.

This instance is mentioned merely for the purpose of cautioning against the assumption that any refrigeration is proper refrigeration.

An insistence upon fresh food, which, of course, presupposes adequate refrigeration before purchase, the thorough cooking of all meats, or meat products, protection of food against infection by means of rats and mice, and proper refrigeration within the establishment responsible for the serving of food, whether restaurant, cafe, hotel or home, will do much to eliminate the danger of food poisoning.

As has been stated, food poisoning is not so common as to occasion a great deal of alarm. However, it does occur with sufficient frequency and severity to justify the exercise of painstaking care in the preparation and handling of food. Our health and efficiency depend more, perhaps, upon the food we eat than upon any other single factor. With this thought in mind, it cannot be too emphatically stated that any precautions taken to assure the safety of our food are decidedly worthwhile.

Sleep and Health

By MRS. J. HENRY HIGHSMITH

SINCE Thomas A. Edison upset the sleep health-chart by saying that up to his sixtieth year of life four hours of sleep a day sufficed him, and that sleep is a matter of habit to be controlled and even diminished by the power of the will, there has been much questioning as to what amount of sleep is necessary to maintain physical and mental health. There is no doubt but that Edison's example and his statement concerning sleep have been responsible for many persons getting insufficient sleep, even to the point of impairing their health. They fail to recognize in him the exception that

makes the rule, and likewise fail to take into account their own mental and physiological constitution and needs.

Recent experiments with dogs to determine the value of sleep found that puppies can live two or three times as long without food as without sleep. It is stated that human beings can live only about two weeks without sleep, whereas they can live from fifteen to sixty days without food. In the loss of sleep the brain gets no rest, and only those who "can't sleep" know the agony of a mind and brain exhausted from lack of sleep.

Sufficient sleep for maintaining health depends on many factors, but most of all on the soundness and depth of the sleep. One authority on health and efficiency has said that five hours' sound sleep—a sleep in which you are “dead to the world”—is far more capable of restoring the body and mind to normal capacity for work than a ten-hour period of restlessness and tossing in bed, with an occasional nightmare.

Since sleep is for rest and for restoring used-up energy, it is safe to say that only when one rises thoroughly refreshed and invigorated from a night's sleep, eager to be up and doing, has he had enough. The amount will depend on the kind and intensity of his work, on his habits of living and eating, also on the amount of recreation and play he gets, as well as on his age. But for the average man 7 or 8

hours, and for the average woman 8 or 9 hours of sound sleep a day is considered the minimum for keeping the mind and the body up to their best functioning powers.

People who begrudge the time they must, perforce, spend in bed for sleep to “knit up the ravel'd sleeve of care,” should look well to their sleep habits. Shorter hours will be necessary if one falls asleep immediately on going to bed, and sleeps soundly in the early part of the night. But all too frequently people build up the wrong sleeping habits. They read after going to bed, take home work to be done at night, or keep late hours eating, drinking and seeking forms of entertainment or excitement. They insist on burning the candle at both ends, and consequently pay the price in inefficient labor, poor health and shattered nerves.

Child Guidance*

By SYLVIA ALLEN, M.D., *Charlotte, N. C.*

THE very title is appealing, everyone having tasted somewhere in life the results of lack of guidance or misguidance. It is not uncommon for us adults to be reasoning with ourselves thus, “I know what this fear means; it's an unfinished business of childhood, and I'll have none of it.” The unfinished business of childhood has a way of creeping into all the ramifications of life and coloring numerous common situations with strong emotions of pain or pleasure, causing many molehills to assume the proportions of mountains. A molehill in the road is easily surmounted, but a mountain in the road actually causes you to get out of your car, and creates consternation as to how to go ahead.

The Child Guidance Clinic is an attempt to bring together all community resources in behalf of children

who are in any sense distressed, by unsatisfied inner needs, or at odds with their environment. “Children whose development is thrown out of balance by difficulties which reveal themselves in unhealthy traits, unacceptable behavior or inability to cope with social and scholastic expectations.”

This service is rendered in various communities under various auspices. In most instances the incomplete formulation of the science of mental hygiene necessitates private subsidy. The subject is more or less still in the research field and is not yet capable of statistical comparison with other phases of mental health, yet it is rapidly and deliberately reaching that standard, and it is the belief of the

* Paper presented at the N. C. Graduate Nurses Association in annual session, October 9, 1935, Charlotte, N. C.

writer that it will be within the near future that we will find child guidance and mental hygiene an established part of or a correlation with the public health movement. This is of necessity. I have only to remind you of the figures from the Mayo Clinic at Rochester, which a year or two ago stated that they sent 56% of the persons who came to them for abdominal operations to neuropsychiatrists. The present art of medicine consists, not only in the actual diagnosis and treatment of the classical organic diseases, but also of the concomitant emotional factors which promote or retard healing.

The community which has a child guidance clinic soon learns that the type of child desired by the clinic is the potentially normal citizen who is showing some deviation in conduct or some reaction to environment which will ultimately thwart that person's development or bring them into conflict with society. The recognition and the treatment of such children is a special technique which up to recently has not been taught in the medical schools and hence, has not been a part of the equipment of even the finest of physicians, but is now so permeating medical education that it will not be long before the pediatricians, at least, will have some willingness to face these problems with the parents of their patients and much of this will not be left to the psychiatrist and the child guidance clinic, and this is as it should be. However, it is questionable as to how much time the general practitioner or the pediatrician can give to these involved questions, the treatment of which demands hours of consistent and painstaking work.

It is interesting to remind you of the ancient attitude toward all nervous and mental deviations, which began in the field of the supernatural with strong ideas of sin, retribution and demon possession, treated, as you will remember from your history, by

punishment, rituals, exorcisms, chemical and physical restraint, etc. It will also interest you to be reminded that the first time in which the psychological keynote was sounded was in the early 19th century, about 1803 Johannes Reil, a German, wrote a monograph suggesting that fear, grief, anger, love had something to do with deviations from the normal. However, as late as the 80's of the 19th century, when Charcot, Bernheim and Mesmer began their work in France, they were entirely repudiated by men of science. They worked with such illusive factors as suggestion, hypnotism, the dissociation of personality, hallucinations, and it is of great interest to note that Freud found the basis of his great analytical school in this work.

The development in the early 20th century has been amazing. Most of you know of the early founding of the mental hygiene movement, May 6, 1908, in Connecticut, oriented upon the manic-depressive psychosis of Clifford Beers, who was willing to share his desperate mental sufferings with the world for the sake of what it might mean to humanity. There is little use in reiterating the history of the last twenty-five years of the growth of the National Committee for Mental Hygiene through the improvement of the care of the insane, the feeble-minded, the adult criminals, the juvenile criminals, the mild behavior disorders, the preventive work of parent education—all of which have resulted in the present-day child guidance movement. "The task of destroying ingrown prejudices and humanizing long-established practices in each field was huge enough to absorb the energies of the most zealous worker."

The term "Child Guidance Clinic" was coined in 1922, though the essentials of such a clinical scheme had been creeping into practice for ten years previously. In 1915 Dr. William Healy of the Judge Baker Foundation

in Boston wrote, "The idea that the individual must be carefully studied in order that crime may be ameliorated has been steadily growing since the day of Lombroso." The Chicago Juvenile Psychopathic Institute, founded by Healy in 1909, was undoubtedly the pioneer in this field, though Witmer's Psychological Clinic at the University of Pennsylvania, established in 1896, had in some degree blazed the trail.

The judges were among the most eager students for this procedure and results, and Judge Harvey H. Baker of Boston urged the establishment of a clinic there similar to the Chicago one which served the juvenile court in that city. When Judge Baker died in 1915, a foundation bearing his name was established by his friends in Boston. In the meantime numerous psychiatrists, psychologists and social workers had been visiting Dr. Healy's service in Chicago and the idea was carried to numerous states by them.

In 1912 and 1913 workers on these subjects were added to the Boston Psychopathic Hospital and the Johns Hopkins Hospital.

The beginning of formal training of psychiatric social work was at the Smith College School for Social Work, forced by the necessities of the war period. Even to date there are an inadequate number of workers in this field.

Through several of the big foundations, primarily the Commonwealth Fund backing the National Committee for Mental Hygiene, demonstration clinics were carried on, formally for five years, from 1921. In 1922 there were seven such clinics in the country. By 1928 there were three hundred such clinics, and it has been stated that about that year, forty thousand children were examined in such clinics. The Institute for Child Guidance maintained on a highly scientific basis in New York under the leadership of Lawson Lowrey stated at the end of

their five years of service that the most potent finding of causes in the behavior problems which came into their hands rested in the parent-child relationship. They stated further that of the two types of exaggerated parenthood, the over-protective parent resulted either in an over-submissive, immature, undeveloped child or a negativistic, revolting child who bucked the authority of the parent. The other type of exaggerated parenthood, the one who neglected a child, resulted in an insecure child with feelings of being unloved and misunderstood. This great demonstration has gradually given away to locally supported clinics over the country, partially tax-supported and partially privately subsidized, with research still an underlying and primary trend.

Today common causes for referral are such as: disobedience, negativism, stubbornness, rebelliousness, nervousness, temper, stealing, truancy, lying, feeding difficulties, inability to get along with others, retardation in school, bed-wetting, speech difficulties, disturbing behavior in school, bad habits, such as finger-sucking and nail-biting, placement problems, over-activity, shyness, sleep disturbances, fears, day-dreaming. The most difficult problem before the staff is the selection of suitable cases, since all cannot be handled.

When a case is referred a consultation is held by the social worker with the person referring, and a careful description of the problem obtained. This is then taken up with the psychiatrist in charge, and if the problem seems a suitable one for such a clinic the social worker makes a visit to the home and school and slowly builds up as complete a history as possible of the factors which have entered into the child's developmental history, physical and mental, the hereditary background, the home relationships, the reactions to society, the personality as seen by

others, the special interests, abilities and disabilities and this is in the hands of the psychiatrist, who usually holds at least one consultation with the guardian or the person closest to the patient. This is followed by a very complete physical examination, and in many cases adequate causes of the difficulty are found in this field and the general practitioner is called into the service of the child referred. However, the mental and psychiatric examination of the child follows. The doctor is then in a position to begin to evaluate the physical, the emotional and the intellectual factors involved, and in most cases, two if not three of these factors must be considered. If the difficulty is entirely in the emotional field, or mainly in the emotional field, it is held within the scope of the clinic treatment; if the trouble is primarily a physical one, such as tuberculosis or an orthopedic defect, it is referred to the proper specialist in those fields. As soon as the information is fairly adequately gathered, a staff meeting is held, so that all members of the staff may bring their knowledge to bear on the situation. These staff meetings include the social workers or teachers closely concerned.

Thus, "beginning as an adjunct to the courts, the child guidance clinics have developed an independent status, establishing close communication with schools and social agencies, and now moves toward university affiliations", says Dr. George S. Stevenson in his 1934 publication, "Child Guidance Clinics." He continues, "Beginning in isolation as a professional anomaly, it has shared techniques with teachers and social workers, and now has a part of the rapprochement between psychiatry and general medicine. . . . It has lost its rigidity and become a flexible instrument for varied uses. "The child guidance clinic, with its psychiatry based on general medicine, pediatrics, endocrinology, the school of

Freud's psychoanalysis, Watson's behaviorism, the German Gestalt psychology of unity from pedagogy and social work is now connecting itself closely with the work of the State institutions for nervous and mental disease, and has helped to break down the barriers between institutional work and clinical medicine, so that there is a close cooperation between these two sources."

It is interesting that in a community where a child guidance clinic is attempted for the first time those persons who have had some member of the family either ill or potentially ill from a nervous or mental disorder or have seen some loved one go through such an experience, are the ones from whom moral and financial support are first obtained. The well-extroverted, matter-of-fact persons of a community have little idea of the power of emotional factors to make or break the happiness and efficiency of an individual. Hence the need of a tremendous educational program.

THE FIRST SIX YEARS

A baby at birth has few well developed physical or mental traits. He has, however, many potentialities that may or may not become actualities, depending on the surroundings in which he is placed. Behavior patterns are engrafted early.

The kind of adult the baby will become depends on his heredity, his prenatal growth and development, his pre-school years and the later years of his childhood and youth. Those wise in automobile mechanics say that the life of an automobile depends largely on the way it is driven during the first thousand miles. The first six years of the child's life therefore are of peculiar significance. His personality depends in a large measure on the way he is handled during these early years. —Evelyn M. Carrington, in *Hygeia*.

WHAT PEOPLE MUST KNOW

They must know the widespread prevalence of the venereal diseases.

They must know the far reaching havoc wrought by them.

They must know that they are infectious and communicable.

They must know that gonorrhea and syphilis often remain in a latent state for years after a supposed cure.

They must know that the disappearance of active symptoms does not mean a cure of gonorrhea, nor does the disappearance of visible symptoms mean the cure of syphilis.

They must know that they are not infrequently carried into the home and family after a supposed cure.

They must know that in the female, gonorrhea has such a wide range of manifestations that there may be no indication whatever of disease, or there may be any and every symptom of female trouble up to the most severe and critical illness.

They must know that a part of the so-called female trouble of married women is due to gonorrheal infection, is innocent infection, and that thousands of women die or undergo serious mutilating operations from the same cause.

They must know that most of the persons who are blind from infancy are victims of gonorrheal infection of the parents.

They must know that most syphilitics are normal looking persons, and that many of them are unaware of their real condition.

They must know that for only a short period are there skin eruptions and that superficial sores and ulcers appear in but few cases.

They must know that all of them are doomed to death at an early age (unless properly treated) and death returns will be in accordance with the organ or tissue affected—such as heart disease, paralysis, Bright's disease, in-

sanity, apoplexy, locomotor ataxia, or disease of the liver, bowels, brain, nerves, blood vessels, or of any organ or tissue, instead of the true cause—syphilis.—*Georgia's Health.*

CLEANING TEETH OBLIGATORY IN ITALY

Upon orders from the Minister of War, the army doctors are expected to see that all soldiers clean their teeth after meals. For this a room has been specially equipped. Whoever neglects to do so must report. In the Aviation Headquarters in Rome, next to the great dining hall there is a room where everyone connected with the establishment from the Minister down must clean his teeth. A guard is appointed to check up on everyone to see that he carries out the orders. "Forward March, to Clean Your Teeth!" Not bad.—*Health Digest.*

THE CASWELL NEWS

The above is the name of the official publication of the Caswell Training School at Kinston. Volume I, Number Three lies before us. Quoting from a statement at the head of the editorial page it is "Published monthly for the benefit of Caswell Training School and for the information of the citizens of North Carolina." The editor is Dr. F. M. Register, superintendent of the institution. Miss Hazel Wertman and Mrs. Fannie Harlan are associate editors and Miss Mary L. Utley is business manager. It is a neat, readable publication printed on good paper. It carries some advertising and the subscription price is fifty cents a year.

A marked copy of the closing paragraph of one of Dr. Register's editorials should be sent to the head of every State institution in North Carolina. It is this: "Visitors do an institution a lot of good. Visiting day is *every day* at Caswell."

Smallpox

By JOHN H. HAMILTON, M.D., *Director State Laboratory of Hygiene*

NORTH Carolina is inviting smallpox to visit the State. During the 1920's the disease was very prevalent, there being from 1,500 to 3,800 cases per year during most of that decade. The amount of smallpox vaccine distributed by the State Laboratory of Hygiene enables us to make a fairly accurate forecast as to the future prevalence of this disease. For the years 1920, 1921 and 1922 less than 150,000 doses of vaccine per year were distributed. In 1923 we had 3,352 cases of smallpox, and in 1924 we had 3,845 cases. Evidently we became tired of having smallpox since the amount of smallpox vaccine increased in 1923-1926 to 250,000 doses per year. This was followed by a decrease in prevalence in smallpox, there being only 1,594 cases in 1926. This apparently restored our confidence and the amount of smallpox vaccine distributed during that year decreased. In 1928 there were 2,419 cases of smallpox, which again aroused our fighting spirit for during that year the State Laboratory of Hygiene distributed approximately 470,000 doses of vaccine. In 1929 there were only 589 cases of smallpox. Since then the use of smallpox vaccine has decreased. During the year 1935 less smallpox vaccine was used than in any year since 1922. Presumably we become indifferent to the dangers of smallpox as soon as its prevalence is decreased. When we use less smallpox vaccine we invite the disease to return. Our experience with the disease during the past fifteen years should keep us on the alert. If we go further back into the history we have most dramatic demonstrations of the dangerous potentialities of this disease.

The disease was brought to America by the Spaniards about fifteen years after their discovery of this country. It spread rapidly from Mexico, and within a short period of time about three and a half million Indians died of smallpox. A little later it was estimated that nearly one-half of all the Indians in America died of this disease. In 1752 Boston had a population of 15,684, of which 5,998 had previously had smallpox. During an epidemic, there were 5,545 persons who contracted the disease in the usual manner, and 2,124 took in by inoculation, while 1,843 fled from the town to escape the infection.

Thus, in brief, is the picture of the terrors which epidemics of smallpox had for our people only one hundred and eighty years ago.

Smallpox was once so common that everyone expected to get it some time during their lives. In fact, at one time, it was more common than measles is today. Since every one expected to have the disease, some people would have themselves inoculated so they could have it at a convenient time. No one who had not had smallpox would contemplate a long trip until after they had been inoculated with smallpox and had recovered from the disease. When inoculated with smallpox, a person would probably be just as sick as if he had caught it in the usual way. However, he would be sick at home and would have his own nurses and doctors. In spite of his dangers and the distress which he suffered, he was better off than if he waited until he contracted the disease in the natural way.

Then in 1749, a boy was born who was destined to be the pathfinder of means of protection against this loathsome disease. Edward Jenner was the name given to this boy. His father was an English minister. As a school boy, Edward Jenner studied hard. He was later apprenticed to a surgeon in his home town of Gloucestershire. He continued to study and later became a pupil of the famous John Hunter. While he was still a student, a young girl came to him one day for medical advice and said, "I cannot take smallpox because I have had cowpox." This statement made a strong impression on the young medical student. Edward Jenner was not only a good student, but he was a careful observer. He soon noticed that some people who worked with cows did not develop smallpox when exposed to it and could not even be inoculated with it successfully. On investigating this strange condition, he found that people who milk cows were likely to infect themselves with a disease of cows known as cowpox. Cowpox in man was a rather mild disease, but was sufficiently severe that most people who had it would remember the experience. Jenner began a painstaking investigation and inquired of farmers, dairy maids and other people who came in contact with cows if they had had cowpox or smallpox. He found that

those who had had cowpox had not had smallpox, and that those who had had smallpox had not had cowpox. For several years he collected his evidence until he was convinced that the simple cowpox would protect against the dreaded smallpox. In 1796, when he was 47 years old, a dairy maid by the name of Sarah Nelms came to Doctor Jenner with a cowpox infection on her hand. The Doctor wished to protect one of his little patients from smallpox. He was convinced that cowpox would protect, so he took some of the material from the pustule on the hand of Sarah Nelms, the dairy maid, and transferred it to the arm of James Phipps, his 8-year-old patient. James had a typical take but was scarcely sick at all. Doctor Jenner was most anxious to see if James was really protected against smallpox, so about a month and a half later, the Doctor inoculated James with smallpox. No disease developed. The Doctor was anxious to prove his case so he then inoculated ten people who had had cowpox several years before. None of them developed the disease. He then felt so sure that his observations were true that in 1798 he presented a paper to the Royal Society, which rejected it with discouraging hostility. However, Doctor Jenner continued his investigations and continued to write and talk about his work.

The smallpox vaccine of today is a vastly improved product to that of Jenner's day. Even the technique of vaccination has improved. The product of today, however, does have definite limitations. It is perishable and will retain its potency only when it is kept cold. At a temperature below freezing it will remain potent for years. Heat rapidly destroys the value of this vaccine. All vaccine distributed by the State Laboratory of Hygiene is potent when it leaves the laboratory. Frequently it has lost its potency, that is its ability to cause successful takes, within a few days after it has arrived at the doctor's office. Since it is distributed by mail it may be subjected to heat either in transit, or in the post office, or in the doctor's office. In the winter steam pipes, or stoves, may supply the destructive temperature when the vaccine is placed close to these sources of heat. Summertime atmospheric temperatures may also diminish the potency of the vaccine.

With a satisfactory vaccine nearly any technique of vaccination will give satisfactory takes in susceptible indi-

viduals. Undesirable reactions are generally due to misdirected efforts to promote the comfort of the vaccinated person. No shields have ever been designed that are not more dangerous than an uncovered vaccination. All such devices should be condemned. Most of them are definitely dangerous. No shield should be used. Neither should the vaccination be covered by an ointment of any kind. If any covering is indicated, it should be sterile, porous, gauze, attached loosely with adhesive tape, several inches from the vaccination. Most infections of smallpox vaccinations result from scratching. Fingers carry contaminating bacteria and should not touch the vaccination.

The immunity conferred by a single vaccination usually lasts longer than the traditional seven to ten years. The benefits conferred extend to twenty years or more. In most individuals re-vaccination reinforces the protection. For those that have been exposed, or are in danger of exposure, immediate vaccination is definitely indicated. A person who is immune to smallpox, will not have a primary take, even with the most potent vaccine. Failure to secure a successful take cannot be regarded as dependable evidence of immunity, unless the vaccine used is known to be potent. Our satisfactory smallpox record during the past few years can be attributed solely to smallpox vaccine. The disease will return whenever we have a high proportion of unvaccinated people in our population. Vaccination is our only effective weapon against smallpox. Healthy carriers of the disease are unknown. Since smallpox can spread only when a susceptible individual comes in contact with a person who has the disease, it can not become prevalent except when we have a high percentage of unvaccinated individuals in the community. Individuals can be protected only by vaccination. Communities may avoid the embarrassment of an epidemic when the individuals making up the community are vaccinated. It is inconceivable that we will permit smallpox to become again the devastating menace that it was some four hundred years ago. It is easy to visualize its returning as we know it fifteen years ago. It is for people in North Carolina to determine whether they want smallpox or vaccination. If they do not have vaccination they can rest assured that they may have smallpox.



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AUGUST, 1936

No. 8

Ready For Public Health Work



Fifteen nurses who recently completed a special course in public health nursing at Peabody College, Nashville, Tennessee. They have been assigned to work in different counties, in accordance with the program sponsored by the State Board of Health and the Federal authorities in Washington, D. C., and made possible through the Social Security Act.

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FREE HEALTH LITERATURE

The State Board of Health publishes monthly **THE HEALTH BULLETIN**, which will be sent free to any citizen requesting it. The Board also has available for distribution without charge special literature on the following subjects. Ask for any in which you may be interested.

Adenoids and Tonsils	German Measles	Scarlet Fever
Cancer	Health Education	Smallpox
Constipation	Hookworm Disease	Teeth
Chickenpox	Infantile Paralysis	Tuberculosis
Diabetes	Influenza	Tuberculosis Placards
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SPECIAL LITERATURE ON MATERNITY AND INFANCY

The following special literature on the subjects listed below will be sent free to any citizen of the State on request to the State Board of Health, Raleigh, N. C.

Prenatal Care (by Mrs. Max West)	Baby's Daily Time Cards: Under 6 months;
Prenatal Letters (series of nine monthly letters)	5 to 6 months; 7, 8, and 9 months; 10, 11, and 12 months; 1 year to 19 months;
Minimum Standards of Prenatal Care	19 months to 2 years.
Breast Feeding	Diet List: 9 to 12 months; 12 to 15 months; 15 to 24 months; 2 to 3 years; 3 to 6 years.
Infant Care. The Prevention of Infantile Diarrhea	Instructions for North Carolina Midwives
Table of Heights and Weights	

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THE Health Bulletin

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Notes and Comment

By THE EDITOR

FOR the first time in nine years THE HEALTH BULLETIN is late in reaching our readers. The delay has been due to the failure of the department of the State government responsible for letting printing contracts to place these contracts early enough for the manuscript to go to the printer at the usual time in order to complete the publication ready to begin mailing on the first of the month. We regret the delay and we hope it will not occur again.

* * *

IN a letter to one of the daily papers a few days ago we noted that Mr. Lindsay Russell, of Wilmington, commented on the efforts Mr. George B. Elliott, of the Atlantic Coast Line Railroad, has been recently making to combat the unnecessary and disturbing noise prevalent everywhere on the streets of the towns of the State, from the smallest to the largest, particularly through the late hours of the night. It reminds us that one of our friends who lives here in one of the hotels in Raleigh has complained bitterly with little results. Our friend says that from one o'clock at night to daybreak an automobile horn is almost constantly blowing. To help the racket along the street cleaners and garbage cleaners come along about three or four o'clock in the morning and rattle the large metal cans suffi-

ciently to awaken every sleeper on that side of the hotel.

This writer had hoped that the new crop of automobiles would be equipped with horns which are less raucous, but instead of that all the newer cars seem to be provided with the loudest horns in the history of the automobile service. The only time an automobile horn should ever be blown is occasionally in starting to back out on the street into traffic, and very seldom to warn careless pedestrians. There are many other useless and unnecessary noises which contribute to our increasing nervousness as a people which could with a little forethought be entirely prevented.

* * *

AS every well-informed person knows, the business of catering to tourists all over the world is at the present time one of the most profitable. Entire nations are making an effort to secure visitors from other nations. The State of North Carolina is peculiarly situated. Its geographical position places it in the position to cater to year-round travelers. In the summer months the sea coast attracts visitors who like water sports. The mountains also attract visitors who like that section, and now with the development of the Great Smoky Park and the big Federal highway in that section, the

tourist traffic is coming to be the most important industry in the State. In the winter months a large number of people find the climate agreeable both on the coastal plains and in the mountains. The State system of roads makes it possible for tourists to travel from point to point with great ease and facility.

There is just one important factor that the commercial interests of the State, as well as the other part of the citizenship, has failed to appreciate, and that is the extreme importance of providing safe water and sewage disposal at all of the hotels and boarding houses, and particularly roadside eating places and filling stations. The State law does not give the State Board of Health at present the right to regulate the sanitary conditions in filling stations situated outside the suburban areas and in isolated places. Every effort is being made to bring about safe conditions in this respect. An increasing number of filling stations which serve food and drink along with their automobile products are

coming to realize that a traveler will certainly never come back to a place that is found dirty and undesirable. The trouble is, however, that so many of the travelers only make the route one time; but the sooner these filling station people understand that while travelers coming down from Massachusetts may not come back again, they will be sure to pass the word along up and down the line to let any place alone that does not conform to modern standards of cleanliness.

If the State is to attract visitors it must make them comfortable, provide them with safe water and safe food of every description, toilet facilities of the most approved type, freedom from flies and other insect pests through thorough screening and cleanliness. They must be provided with food properly prepared and served in an attractive manner at reasonable prices. They find these things in other parts of the world, and if our State is to compete successfully with other sections of the country it must improve its methods in this respect.

Rats and Our Health

By GEORGE B. LAY, JR., *Biologist*
U. S. Biological Survey, With Headquarters at N. C. State College
for Rodent Control

THE Norway or wharf rat is the most destructive animal in the world, according to the opinion of scientists. The Norway or wharf rat is our common barn and warehouse rat and is very prevalent in North Carolina. In North Carolina alone this rodent does annually about \$6,000,000 worth of damage, not including the vast amount of loss to our State through sickness of human beings and even the death of scores of individuals. As important as the monetary loss due to rats may be in North Carolina, it is my purpose in a

series of articles in the State Health Department BULLETIN to depict the direct effect of the presence of rats and their injury to the human race through the spreading of diseases, pollution of water sources and food, and by the carrying of certain fleas and ticks which transmit dread diseases of humanity.

When I say that rats carry and spread diseases of many kinds I am putting it mildly, for we do not know for certain the names of all the diseases which this animal does carry and spread. We know that rats carry filth

and disease germs on their bodies, in their mouths, on their teeth, and that they deposit, wherever they go, fecal matter containing other disease germs and organisms. A list of the diseases of which rats are known to be carriers would fill a page in this BULLETIN. The list of diseases which rats probably do carry, but proof of which we do not actually have as yet, would be equally as long.

Typhoid disease germs may be carried in many ways: by flies in contaminated milk and foods of many kinds, on polluted meats and vegetables, in our water supplies unless properly treated and in other ways. Rats do, without question, when they rob your garbage can and remove pieces of food waste, carry off with such material disease organisms. Rats will carry pieces of partly-eaten food from one place to another, several hundred feet or more removed. They store such food for future use and during the interim the disease germs increase in numbers rapidly. Whenever these rats brush against any object, the germs are scattered; and whenever and wherever they knaw on other foods, they pollute that food supply and may scatter disease.

Many infectious diseases can be and probably are spread by rats. As luck will have it, however, human beings are not frequently bitten by rats, hence rats probably do not carry diseases from one person to another where direct contact with the blood stream is necessary to the spread of the disease; but, where a disease needs entrance merely to the food tract of the human being through the eating of polluted foods, these rodents do aid in disease spread.

It is a notable condition that, where rats are least plentiful, disease outbreaks of most kinds are not as frequent and the number of cases is lower per thousand inhabitants. Cities with

strict rules of sanitation and where garbage is collected regularly and kept in tight containers until collected have better health conditions generally. Every one of these advanced sanitary policies tends to materially decrease the rat population. Old towns and cities, built when our nation was young and filled with poorly constructed wooden homes and business houses, are more likely to have large numbers of rats and are more often visited by disease outbreaks. Where dogs are properly cared for and strays gotten rid of, rabies is less prevalent. Rats are known to carry this dread disease, and rats have actually been caught which had infected both dogs and cats with the disease. Rats have, in rare instances, been known to pass this disease on to man by biting.

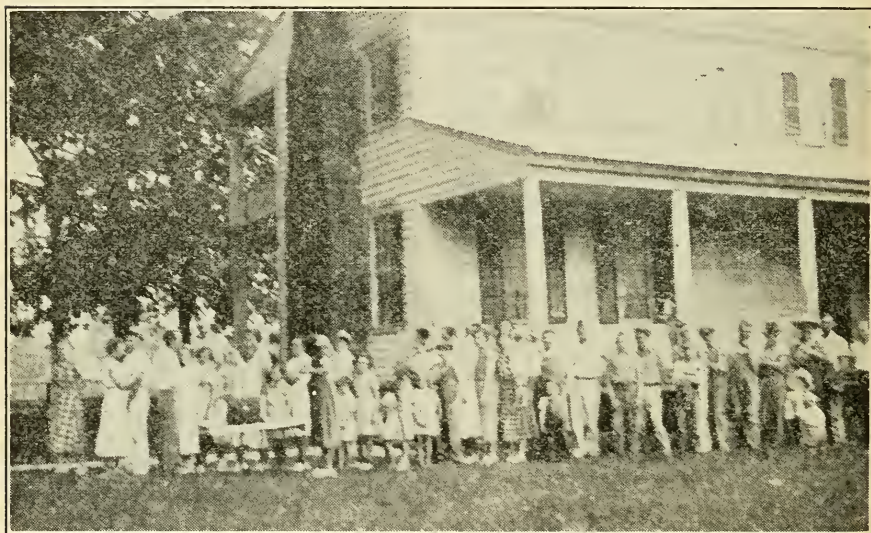
In the North, where houses have to be built to protect man from the coldest weather, the rat is not usually as serious a pest as in the South and probably causes a less injury to the human race through the spreading of diseases. In the West, which is a newer section of our country than the South, the rat is not so plentiful and carries less of a disease threat due to more modern construction of homes and business buildings. Better sanitary laws, more frequent collection of garbage, the use of tight garbage containers, better health laws of many types and the disposal of garbage and trash regularly in modern incinerators serves to decrease the number of rats in that community. When a home or business house is made weather, storm and wind proof, it is also made practically rat proof. Where trash is removed from under homes, from cellars, from outhouses, when yards are cleaned up and kept clean, where food and feeds are kept in adequate containers of metal or thick boarding, where spilled feeds are collected periodically from areas where animals feed; in other

words, where the public tries continually to cut down the food and hiding places necessary to the rat, these animals are less numerous and the citizenship of such a community—in town or in the country—is more nearly free of diseases spread by rats.

The battle against the rat and the fight to cut down sickness and death

by disease is one and the same, and continued efforts on our part are necessary for us to obtain results in this fight.

In subsequent articles I plan to tell you more of the rat and its ways and the manner in which people can help in preventing the spread of sickness and death by these animals.



Group in Bertie County Receiving Preventive Typhoid Treatment

The picture shown above was sent to us by Dr. F. H. Garriss, Health Officer of Bertie County. This clinic was held at the Hermitage Farm, located on the banks of the Chowan River, and was attended by over three hundred white and colored people from that and adjoining farms. At the conclusion of this work, during the month of June, Dr. Garriss and his associates had given three complete treatments to more than twelve thousand people, about half the population of the county.

The value of a modern, efficient, well-organized health department to the average county is invaluable. It is now recognized that any county group with sufficient population and taxable wealth that does not maintain such a department is losing in every way.

Dust as a Cause of the Disease of the Lungs

By H. F. EASOM, M.D., *Director*

Division Industrial Hygiene, State Board of Health

DUST is possibly the oldest source of disease among workers in certain industries. As early as 430 B.C. a Greek physician commented on its injurious effects on the lungs of workmen. The literature of practically all civilized countries contains accounts of dust diseases, indicating that all races are susceptible and that harmful dusts are encountered in many and varied industries. Probably the most outstanding example of this is to be found in the gold mining industry of South Africa where the so-called "dusted lung" became at one time a commonplace disease. In this country it is only in recent years that attention has been so sharply focused on this subject, mainly as a result of numerous damage suits involving large sums of money, and of rather extensive engineering and medical studies revealing the presence of very definite health hazards in certain industries.

Fortunately not all dusts cause harmful reactions in the lungs. The ones known to be most dangerous are those containing free silica and certain silicates. Silica is the most constant constituent of the rocks and minerals which make up the earth's crust. Thus it is that those occupations associated with mining, granite quarrying and cutting, foundry work, driving of tunnels, the handling of sand and gravel are frequently exposed to silica dust in large quantities. It has been estimated conservatively that about 500,000 workers in the United States are exposed to silica dust to a harmful degree. A recent survey of 103 plants in North Carolina employing 4,407 persons revealed that 60 per cent of the workers were exposed to silica-containing dusts.

Among the silicates, that is, compounds of silica, asbestos and talc are known to be harmful in certain concentrations, but these minerals are much less widely used than those containing free silica. It happens that in North Carolina there are four plants using asbestos and three engaged in mining and milling talc.

The lungs are in free communication with the outside and are thus exposed freely to dusts or other impurities in the air. However, there are certain mechanisms which act as barriers to the entrance of dust. The nose is lined with very coarse hair which acts as a filter. Also, the lining of the nose and upper air passages is moist and tends to arrest the progress of dust particles. Another protective mechanism is in the form of very small hair-like projections on the lining of the nose, pharynx, trachea, and bronchial tubes. These have a wave-like action toward the outside and tend to keep the particles from entering the air spaces of the lungs. In spite of all these protective mechanisms, a certain amount of dust gets into the air sacs. Even large quantities of the harmless dusts such as soot seem to cause no serious trouble, but the continued inhalation of dust containing silica or certain silicates often leads to a condition whereby the elastic air-containing lung tissue is replaced by inelastic scar tissue. This condition is known as silicosis or asilicatosi, depending on the type of dust causing it. As this condition progresses the breathing capacity of the individual becomes less and less, and for some reason he becomes much more susceptible to tuberculosis and other respiratory diseases than the average person. Once the condition has become well developed,

practically nothing can be done by medical science toward clearing it up or relieving the patient's symptoms of shortness of breath and cough. Even after the worker is removed from the dusty plant the scar tissue continues to form slowly in his lungs.

The length of time required for a worker in these harmful dusts to become disabled depends on the amount of free silica or silicate in the dust, the size and number of particles in the air he breathes, and the length of time he is exposed. It is only the particles too small to be seen by the naked eye that are able to enter the lung. Larger dust quickly settles or its entrance into the lungs is hindered by the protective mechanism of the nose and upper air passages.

The solution of the problem of diseases caused by dusts lies in prevention. Once they have developed it is too late. Prevention consists in the proper selection of workers and the control of dust at its source. Individuals having active pulmonary tuberculosis or extensive healed lesions, chronic non-tuberculous lung conditions and organic heart lesions should not be allowed employment where they will be subjected to the inhalation of high concentration of free silica or silicates. By far the most important means of prevention at our disposal is the control of the dust at its point of origin. This may best be accomplished by sucking up the dust where it is created by using a properly designed exhaust system. Other control methods which may be of value in certain instances are the substitution of wet in place of dry processes, isolation of dusty processes, and the use of respirators. The practice of good house-keeping in any plant will materially reduce the amount of dust in the air.

North Carolina has recently taken a great step forward in the protection of its million and a quarter industrial

workers by establishing a Division of Industrial Hygiene as a department of the State Board of Health. This was brought about through the co-operation of the U. S. Public Health Service, the North Carolina State Board of Health, and the North Carolina Industrial Commission. It will concern itself with any condition which may injure the health of industrial workers and will act as a source of information for other interested State departments.

In the beginning the personnel of this department will be concerned chiefly with studies of plants having a potential dust hazard. All persons will be examined and X-rayed before being allowed to engage in occupations creating harmful dusts. In addition, workers already employed will be examined and X-rayed and estimations of the amount and nature of dust in the air in various plants will be determined. With this information in hand it will be possible to recommend changes to keep the dust concentration at a level in which an individual can safely spend a working lifetime without serious injury to his health.

ANNOUNCEMENT

Dr. John H. Hamilton, director of the State Laboratory of Hygiene, announces that the prices on all arsphenamine used in the treatment of syphilis has been reduced, the reduced prices going into effect July 15, 1936. The .6 and .9 gram ampules of neoarsphenamine Merck are now 12 cents each. The 4½ gram ampule of neoarsphenamine Merck are 50 cents each. All sizes of the sulph-arsphenamine are 12 cents each. Shipments will be sent collect unless cash accompanies the order.

The reduced prices are made to physicians of the State only and are to aid and encourage adequate treatment of syphilis.

Report of Bladen County Pre-School Work

DR. R. S. CROMARTIE, Health Officer of Bladen County, has sent us a report of the work for pre-school children in that county which is very encouraging. Of 337 white children eligible for school this fall, for the first time 237 attended the clinic or round-up and one-fifth of them were found to be normal physically. In his letter transmitting his report Dr. Cromartie said, "The picture enclosed (Carver's Creek School) is from a rural community and was a hundred per cent complete in attendance at the pre-school clinic. This community has a wide-awake parent-teacher association, and they requested that we send a report of the clinic to THE HEALTH BULLETIN as THE BULLETIN reaches practically every home in the community."

Just such communities will be the steadying influence which will pull this old State safely through the troubled years ahead.

Orthopedics Includes the Entire Body

There is considerable popular misunderstanding regarding one special field of medicine called orthopedics. This is due to the fact that the name is not derived from the Latin word *pes*, meaning foot, but from two Greek words *orthos*, meaning true, straight or free from deformity, and *paedos*, meaning child.

Orthopedics has the entire body as its field, and individuals of all ages come under its scope. There are two kinds of deformities: the congenital, or those with which an individual is born, and the acquired, or those which develop subsequent to birth.—Dr. Garry Hough, Jr., in *Hygeia*.



CARVER'S CREEK, BLADEN COUNTY, BEGINNERS

Every child in the district who is to begin school for the first time this fall attended the round-up and received the examination.

Resolution Adopted by the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association, June, 1936

Whereas at the annual meeting of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association, held at St. Louis, Mo., February 25, 1936, a presentation was made by Major Joel I. Connolly, of the Chicago Board of Health, relating to possible health hazards in apparently modern plumbing installations in public buildings, and

Whereas it was manifest in the said presentation that plumbing fixtures which have been generally regarded as safe and sanitary in design may in fact constitute a real and serious health hazard by reason of the danger of back siphonage and contamination of water supply mains, and

Whereas the probability exists that such apparently modern, safe and sanitary plumbing installations may exist in numerous school buildings in the United States, and

Whereas the existence of such apparently safe, modern and sanitary plumbing installations and reliance

upon them brings about a sense of false security: Therefore be it

Resolved by the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association, That this committee apprehends the possibility of danger to the health of school children from apparently safe, modern and sanitary plumbing installations in school buildings. And be it further

Resolved, That the said Joint Committee earnestly recommends to all school boards and school executives that surveys be instituted by competent engineers to ascertain whether or not the danger of back siphonage and consequent pollution of water supply mains exist in plumbing installations within their jurisdictions, and that such surveys be followed by prompt corrective measures. And be it further

Resolved, That these resolutions be offered for publication to all journals dealing with public health, health education and general education.

Do You Know About the Volta Bureau?

"We consulted several specialists, and all of them confirmed our fears, but none offered any solution of our problem." Thus the mother of a small deaf child wrote to the Volta Bureau. The sentence might be quoted verbatim from many letters written by parents of deaf or hard of hearing children, or by hard of hearing adults.

The knowledge that deafness is present and that it is incurable comes with the force of a major calamity. It is so crushing in its effect that

something positive in the way of help must be offered immediately, if the individual is not to spend desperate years in a bewildered effort to adjust himself. The parents of a deaf child must be told that the child can be taught to speak and can be successfully educated, and that this education may be begun at home immediately, even if the child is not more than two years old. The parents of a child whose hearing is only slightly impaired must be given advice as to

his adjustment. The hard of hearing adult must be told about lip reading, about hearing aids, about social efforts in his behalf.

The Volta Bureau was established for the purpose of furnishing all this information to all who ask for it. Its services are free. Alexander Graham Bell, the son of a hard of hearing mother, the husband of a deaf wife, the lifelong friend of every one handicapped by deafness, used the money received as a prize for inventing the telephone to found the Volta Bureau so that any one confronting the problems of deafness might be assured of help. Advice is given as to schools and pre-school training, lip reading

instruction, hearing aids, social contacts, psychological difficulties. While the Volta Bureau is not equipped to do employment service, it gives information in regard to the fields of activity that are open to the deaf and the hard of hearing.

The Volta Review, a magazine for parents and teachers of the deaf and for the hard of hearing, is on the reading table of many physicians. Pamphlets dealing with all phases of deafness except medical problems are available to all who ask for them. Lists of such pamphlets and sample copies of the magazine will gladly be sent free of charge. The Volta Bureau is located at 1537 35th St., N.W., Washington, D. C.

Random Observations

By MRS. J. HENRY HIGHSMITH

Harnett County Organizes for Health Protection

Harnett County has recently taken the forward step of organizing a county health department. Dr. W. B. Hunter of Lillington is the health officer. When the new service which began June 12 is completely organized the personnel will consist of one whole-time health officer, Dr. Hunter, two public health nurses, one sanitary officer, one clerk, and twenty weeks of a dental health program. Harnett makes the fifty-fifth county in the State to provide for a county-wide health service.

* * *

To Study the Effect of Housing on Health

Just what effect poor, crowded housing conditions have on health is a subject that is attracting more than nation-wide attention. As a matter of fact, it is of such importance that the Health Section of the League of Nations is undertaking a study of this

question, in which the American Public Health Association has been asked to co-operate. In compliance, a committee on the Hygiene of Housing has been appointed by the A. P. H. A., of which Dr. C. E. A. Winslow of Yale University is chairman and R. H. Britten of the U. S. Public Health Service is secretary.

* * *

Slum Clearance and Better Health

Slum clearance is a civic and health project that several nations are undertaking as an economic recovery program. England seems to have led the way in this. Within the past four years about one million new houses have been built in England and Wales, about half of which were subsidized by the government. Recently a new slum-clearance project has been started by the English government which within five years is expected to demolish all officially condemned slums and do away with overcrowding. Whether there is any direct connec-

tion or not with the housing program, it is interesting to note that the infant mortality rate of England decreased from 65 per 1,000 in 1932 to 58.6 in 1934.

In line with the program and purpose of the Federal Housing Administration, many cities in America are undertaking slum clearance but in modified forms. A statement of slum conditions found recently in a central Pennsylvania city by A. J. Bohl, treasurer of the Pennsylvania Public Health Association, is interesting and is here given:

"In these slums exist about ninety per cent of the city's commercial prostitution. About the same percentage of the felonious assaults occur here, together with eighty per cent of the liquor law violations, and seventy-five per cent of the highway robberies and larcenies. Generally, ninety per cent of all the crime in the city is committed here or, if elsewhere, is committed by residents of these areas. From a health and sanitation standpoint, also, the picture is of the darkest hue."

* * *

Beware of Poison Ivy

Poison ivy or poison oak may be an unpleasant aftermath of an otherwise pleasant vacation spent in the mountains or woods unless one is careful to avoid contact with these plants. Only one who is highly sensitive to plant poisoning and who has suffered the inconvenience as well as the pain of this infection knows how much better it is to avoid it altogether rather than run the risk of contacting it.

Poison ivy, poison oak and poison sumac grow in nearly every section of this State. They may be found near streams, ditches, and growing on or about fences. Each contains an acid secretion which is very poisonous to individuals who are susceptible. Consequently it is well to know these

plants by sight, which should be one of the first steps toward getting ready for a vacation to be spent in the woods or mountains.

First and early treatment after contact has been made should be to bathe the affected parts in hot salt water, or hot soap and water, using a strong alkali soap. A brush should not be used as there is danger of breaking the skin and making the infection deeper. A strong solution of Epsom salts and water is also recommended. If the infection persists, see a doctor for further treatment.

* * *

Swimming Is Not Always Free From Danger

Swimming is a sport not without its dangers, even to the so-called good swimmer. There are perils for the over-confident and unwary as there are for those just beginning to learn. Especially is this true for those who swim in rivers, creeks and ponds, where there is no supervision or means of rescue. It is in such places that drownings occur much more frequently than at the seashore, at supervised lake beaches or in municipal swimming pools.

Some of the more frequent perils met by the uncautious swimmer are from reckless diving—not knowing the depth of the water; from unsuspected step-offs, obstructions and currents—being unfamiliar with the bathing place; from over-exertion or staying in the water too long for one's strength; from fool-hardiness, especially on the part of young swimmers, and from cramps.

Cramps in the stomach are usually due to excessive eating or drinking or too much exertion without "cooling off" before going in. Cramps in the feet and legs are primarily due to the unaccustomed exercise that these members have been suddenly called on to do.

Two good rules for all persons going in bathing to remember, especially if bathing or swimming in rivers, creeks and ponds, are: first, never go into the water alone. Unforeseen mishaps may occur to the most accomplished swimmer. Second, consider all dark and muddy waters unsafe. Turbid or muddy

water may hide sticks, stones, glass and tin cans which could cause serious injuries. It conceals its depth and does not allow quick recovery if one should go down in it. Such waters take many innocent victims in North Carolina every year.

Carbuncles of the Face

A STUDY of 31 cases of carbuncles of the face which were treated at the Los Angeles Hospital over a period of eight years affords some interesting information regarding this dangerous and painful infection. In the first place, according to a report of the study made by H. P. Totten, quoted in a current medical publication, the organism causing the infection is a normal inhabitant on the external surface of the skin. Its mode of entrance may be through a scratch, abrasion or some other minor injury. Entrance usually takes place along a hair follicle or the adjacent sebaceous gland, whence it invades the deeper layers of the skin. Nineteen of the 31 cases started as pimples or pustules which suggests entrance through a hair follicle. Five started as small painful swellings which suggests gland involvement. Three began as inflammations of the skin, two followed insect bites and one developed during a series of boils.

The patients ranged in age from 18 to 73 years. There were 18 males and 13 females. Most of the patients were in good health. Three of the 31 died: 1 female and 2 males.

Characteristic local symptoms of carbuncles are marked swelling and hardening of the portion of the face involved with pain that varies according to the amount of tension developed. Fever varies from 1 to 6 degrees with pulse in accordance. In severe cases there may be chills, headache and intense pain.

Two precautions are emphasized in this study of carbuncles that should be of especial value to every person. One is that picking, squeezing or cutting into bumps or pimples on the face is dangerous. A harmless pimple may thus be transformed into a dangerous infection. Says the author, it is a pernicious practice too frequently indulged in with disastrous results. The other is that complete rest in bed is recognized as essential in the treatment of carbuncles. This is said to be the sheet-anchor of successful treatment. A complete rest of all parts of the body, and particularly the face, is advised. There should be no talking and the necessity of chewing should be obviated as much as possible. The infected area should be made as immobile as possible to prevent further extension of the process.

As to treatment, it was found that about one-half of the cases responded to non-surgical treatment, comprising for the most part of quiet rest and the application of hot moist dressings. He quotes: "The use of continuous hot moist dressings of boric acid or magnesium sulphate solution is an effective measure in localizing the infection and increasing the strength of the leukocytic barrier of defense by stimulating the flow of lymph and blood to the area. An additional benefit derived is the relief of pain."

The best surgical treatment found, according to the report, was that "drainage and relief of tension are safely effected in the refractory cases by means of central cauterization with phenol and the electric loop cautery."

Public Health Officers Given College Degrees

ADD to the list of the thousands of graduates of the current season of commencement exercises of high schools, secondary colleges, universities, et cetera, some forty or more public health officers who have received degrees at the conclusion of a course at the University of North Carolina at Chapel Hill.

These men for the most part have been engaged actively in the public service. Most of them already held degrees in medicine or sanitary engineering. Yet they took time off in the heated spell to go to the University better to equip themselves for work in one of the most imperative public services. Of a class numbering fifty, the forty-odd finished the course and are returned to their posts with the distinction of having been given diplomas guaranteeing their fitness.

Public health officers make a company familiar to the people of every county, but in spite of their importance they have not received anything like the attention their labors deserve. In times of epidemics we know that there is a health officer and lean upon him. But ordinarily his life is one of routine. It is the routine of preventive medicine, of sanitary precaution, of official observation. The health officer guards the places in which the public is fed. He sees to it that what the public drinks is served in cleanliness. He is something of a Czar of a beneficent type, without whose order no one may cater to the people at large. When the epidemics come along, he goes into more spectacular action, but his place and his duties for the most part have to do with keeping epidemics from getting headway.

Recognition of public health officers as a class, their instruction at the University, their graduation, mark a

departure in education. Every county has its health officer, but every county needs ten times as many men as the officer and his staff. Now and again, for one cause and another, we face sickness and death and the threat of them. The health officer is on the job. We think of him only in emergencies. But his best and most enduring service is measured by the failure of the emergency to occur.—*Raleigh Times*.

HONORING WILL ROGERS

Will Rogers is to be honored in a manner that would be most pleasing to him were he still living. The major moving picture circuits of the country are to contribute half a million dollars for what the newspapers describe as a hospital, but what is very likely to be a sanatorium, at Saranac Lake. This will be known as the Will Rogers Memorial Hospital.

The plan was revealed in Chicago a short time ago by Will Hays, czar of the moving picture industry.

Will Rogers' interest in and sympathy for those suffering from tuberculosis is a part of the Will Rogers tradition.

It will be recalled that, during the campaign to raise a large fund for a Will Rogers Memorial, *The Sanatorium Sun* suggested that at least a part of this fund be spent for sanatoria for those needing treatment by tuberculosis specialists. Apparently the proposed Saranac Lake hospital is not to be a part of that general fund, but it is eminently fitting that his name be given an institution dedicated to the rebuilding of shattered health in the tuberculosis health country.—*Sanatorium Sun*.

Finds North Carolina Proceeding on Right Lines in Health Work

Dr. Carl V. Reynolds Encouraged by Visit to Canadian Health Meeting

By MRS. J. HENRY HIGSMITH

"**T**HINK of it!" said Dr. Carl V. Reynolds, State Health Officer for North Carolina, on returning from attending a meeting of the State and Provincial Health Authorities of America held recently in Vancouver, B. C., "a country having a maternal death rate of only 2 per 1,000 live births and an infancy death rate of only 29. That is what I found in Vancouver and throughout the Province of British Columbia."

The significance of the above rates is evident when contrasted with North Carolina's which for maternal deaths is about 7 and for infant deaths is 66. But Dr. Reynolds is not dismayed by the wide difference in the two rates, or rather is not to remain so. On the other hand, he returned encouraged and assured. His assurance lay in the fact that North Carolina is proceeding on the same program to reduce the number of deaths of mothers and babies in the State that has succeeded so well in this Canadian Province. "What Vancouver and British Columbia have done, North Carolina is now prepared to do, and we too will get results," he said assuredly.

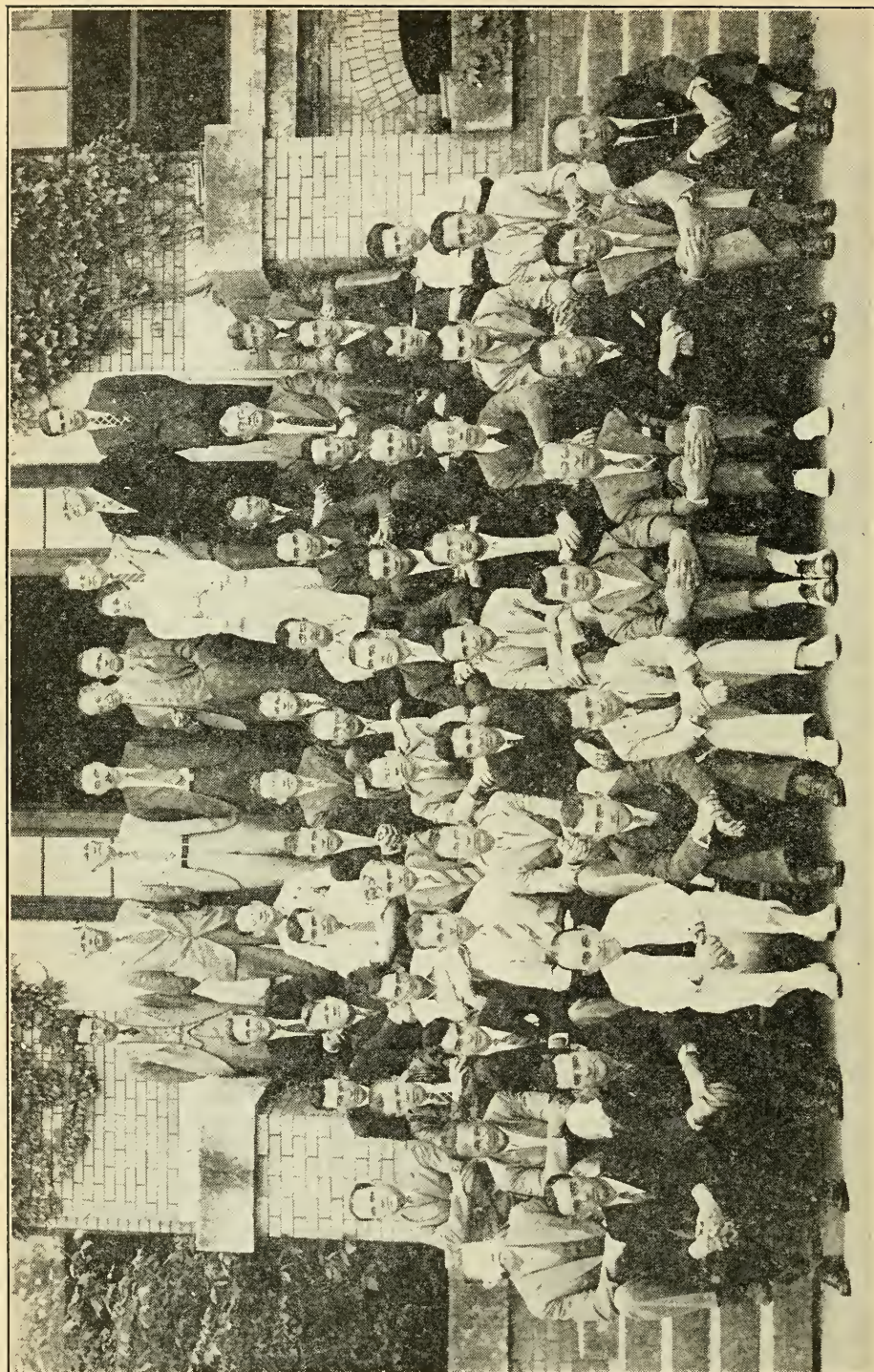
The measures by which Vancouver has been successful in her maternity and infancy program and is attracting more than nation-wide attention among health workers have been prenatal care, hospitalization for certain cases, post-natal and infant care. "But the real secret," said Dr. Reynolds, "is cooperation—cooperation on the part of obstetricians, pediatricians and the nurses. Each of these groups is alert and actively cooperating, each recognizing the necessity of its services to the success of the program."

Points wherein the Canadian program is similar to that the State Board of Health, under the direction of Dr. G. M. Cooper, is now at work on are, according to Dr. Reynolds, the lecture or "refresher" courses for doctors held periodically at conveniently located places; the health centers where mothers come for prenatal consultation and advice from local physicians; and the public health nursing service available not only at the centers but to the people in their homes.

"I was particularly impressed," said Dr. Reynolds, "with a system of public health nursing which they have in Canada. They call it the Victorian Order of Nurses for Canada. It is a national organization with headquarters in Ottawa. Its primary object is to provide bedside nursing care for the sick in their own homes on a visiting basis. Patients are charged for each visit on the basis of an average cost, but no patient is refused care because of inability to pay. The order provides a general nursing service for men and women and children regardless of race, color, creed or financial status. Nursing care is given only under the direction of a physician. Nurses employed under the Order are required to be graduates of recognized training schools and to have had post-graduate training or experience in public health nursing."

"Another plan in our State set-up on which I was reassured," said Dr. Reynolds, "was that of coordinating and consolidating the units of work common to all departments, like filing, mailing and issuing circulars and literature. The value of this system was shown to be not only practical, but more economical, more efficient and more desirable when given full cooperation and a fair trial," he said.

Concluding the interview, the Doctor said it was a great meeting, that North Carolina is on the right track in her health work and that he looked for progress and results from now on.



The first class of doctors, sanitary engineers and sanitary officers to be graduated from the University of North Carolina, June 1936. Some members of the faculty, including Drs. Rosnean and Manning standing in the back row



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CARL REYNOLDS BALL

This fine baby is the son of Mr. and Mrs. Robert Randolph Ball of Pasadena, California, and the grandson of Dr. Carl V. Reynolds, State Health Officer for North Carolina. His excellent physique bears testimony that he is being reared according to the health teachings of his illustrious grandfather, and the practice prevailing in California, where every infant born has a much better prospect for living out his first year than in North Carolina.

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The State Board of Health publishes monthly THE HEALTH BULLETIN, which will be sent free to any citizen requesting it. The Board also has available for distribution without charge special literature on the following subjects. Ask for any in which you may be interested.

Adenoids and Tonsils	German Measles	Scarlet Fever
Cancer	Health Education	Smallpox
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SPECIAL LITERATURE ON MATERNITY AND INFANCY

The following special literature on the subjects listed below will be sent free to any citizen of the State on request to the State Board of Health, Raleigh, N. C.

Prenatal Care (by Mrs. Max West)	Baby's Daily Time Cards: Under 5 months;
Prenatal Letters (series of nine monthly letters)	5 to 6 months; 7, 8, and 9 months; 10, 11, and 12 months; 1 year to 19 months; 19 months to 2 years.
Minimum Standards of Prenatal Care	Diet List: 9 to 12 months; 12 to 15 months; 15 to 24 months; 2 to 3 years; 3 to 6 years.
Breast Feeding	Instructions for North Carolina Midwives
Infant Care. The Prevention of Infantile Diarrhea	
Table of Heights and Weights	

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THE Health Bulletin

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Notes and Comment

By THE EDITOR

WE are publishing in this issue some interesting material written by other people. The first item to which we would like to call attention would be the article entitled "Public Health Should Come Through Public Schools." This was a paper read before the North Carolina Health Officers Association in Asheville last May. It was written by Professor C. F. Carroll, superintendent of the Swain County schools. Mr. Carroll has for many years been intensely interested in health education. He has given the problem of public health and preventive medicine intense thought. Through the courtesy of the officials of the State Health Officers Association and the State Medical Society we are privileged to publish this article. Mr. Carroll makes some proposals which would be hard to carry out, but for the most part his thought and argument are along the same lines that the State Board of Health has been advocating for many years.

Another article which we are publishing was sent to us by Dr. L. B. McBrayer, secretary of the Medical Society of the State of North Carolina. It is an editorial entitled "Dead at Twenty." It was published in the *Detroit Medical News* some time ago. The author is Dr. David I. Sugar, of Detroit, Michigan. This is a most interesting article. It will be noted by the reader that the author suggests

that we look at the good old days through the eyes of a doctor—the good old days when half the population died before the age of twenty in England, which was the most advanced in civilization of any country in the world at that period. The writer says that those good old days were days of starvation and plague, of malaria and diphtheria, and infant mortality and early death. It is true, and while a great deal of progress has been made in recent years, we still have too much of this sort of good old days for our best interest.

A third article which we are publishing this month is an article written by Miss Josephine Kerr, a registered nurse of the Charlotte Sanatorium at Charlotte. Miss Kerr's article was published in the April issue of the *Southern Hospital*. The title of the article is "Nurses: A Historical Sketch." Miss Kerr's article will be found exceedingly interesting, particularly at this season of the year when so many of the nurses are at work in the city and country schools all over the State. The nurse is primarily trained to carry out the physician's directions in caring for a sick patient, but for the last few years there has grown up a great body of public health nurses who are engaged in the important work of preventing as much sickness as they possibly can. The efficient, well-trained, educated nurse

commands the respect of the public everywhere today. It is something more than a coincidence that in Miss Kerr's article she mentions the powerful support given by the novelist Charles Dickens in aiding nursing reform nearly two hundred years ago. The coincidence is that in the paper we are publishing by Dr. Sugar from the *Detroit News* he also reviews Dickens' "Pickwick Papers" as an illustration.

* * *

DURING the months of August and September in the State of North Carolina the malaria-bearing mosquito is more active than at any other season of the year. In the average year we probably have more malaria in this State during September than almost any other month. This year will probably be no exception to the general rule. Despite every effort at malaria control, including the thousands of dollars spent by commercial interests and farmers and others in putting into effect large drainage projects, all of which helps some, despite the careful medical treatment as preventives, and finally in spite of the increased use of screens in keeping mosquitoes out of houses, we still have malaria. True, today malaria is nothing like as widespread or as serious as it has been many times in the past, but too many people suffer from this disease for us to look upon it with complacency. In a letter from Dr. F. H. Garriss, health officer of Bertie County, some time ago, Dr. Garriss makes the following statement:

"I am afraid we are not paying enough attention to the chronic malarial carrier. It is almost impossible in this section to eradicate mosquitoes, but if there was some way of controlling the carriers, or of keeping malarial mosquitoes away from them until they could be thoroughly treated or freed of malarial infection, our mosquitoes would not become infected and so transmit the disease to others. I believe this is our surest method of

controlling malaria, and one that until now has been almost entirely neglected."

There probably has been too much neglect in the matter of protecting the malarial patient, especially the ambulatory one, who suffers from chronic or latent malaria from mosquitoes, but of course there has been persistent effort in many sections to treat such malarial patients in order to control them as factors in the further spread of the disease. It is probable that no modern improvement or modern discovery in the field of disease prevention has been of more genuine value to a larger number of people than the simple act of thoroughly screening houses. Few people are so poor today but that they could make sufficient sacrifice to afford screens for their homes. A house tightly screened, if the screen doors and windows are kept tightly closed, practically excludes all mosquitoes and house flies and other insect pests from sleeping and living quarters. Screened homes have added much to the comfort and safety of people everywhere. Dr. Garriss is surely right in the statement that greater and more widespread efforts should be directed by every one in this State to eradicate malaria from within our borders. It is still a public health problem that demands attention until it is no longer present.

While discussing this subject it is well enough to remind our readers again that the large majority of mosquitoes do not carry malaria, but the mosquitoes that do not carry the disease are a nuisance and a menace to the health of babies and children especially. We were interested very much in this connection the other day in looking at a picture in the *New York Times* which presented two men in the Matanuska Valley wearing nets over their hats and tightly fastened around their shirt collars to protect their faces from the mosquitoes present in that section this summer. As most

of us know, the Matanuska Valley is in Alaska, and this picture was of two men who were among the colonists who settled in that section as a relief project more than a year ago. There they have a farming community in the wilds of Alaska resembling such a community in the pioneer days in the middle west. The farmers who went up there were recruited from Michigan, Minnesota, and Wisconsin. They were aided by the Government in building homes and starting their farming operations. The interesting point to us, however, in the sketch was the necessity for protection against the myriads of mosquitoes prevalent in that far northern country this summer. Mosquitoes are found almost anywhere in the world, and malaria is one of the most widespread diseases in existence today.

* * *

WE cannot refrain from once again discussing the excessive automobile death rate, and once again to reiterate our belief that excessive speed is one of the chief causes of so many fatal accidents. Naturally liquor, defective eyesight, and ordinary carelessness and indifference contribute a part, but there is no one cause equal to that of excessive speed in accounting for the large number of fatal accidents. This was brought home to the writer a few days ago more forcefully than ever before. We had taken our car to the garage very hurriedly on the way out of town on an official mission. The trip required about a hundred miles driving in excess of the time allotted for changing oil and so on. Wishing to be sure that the car would not be damaged, we asked the young mechanic's opinion on that point. He turned and looked us straight in the eye and said, "You do not drive fast, do you?" We replied that it depended on what he called fast, that our rate was around forty-five miles an hour, never in excess of fifty under any circumstances. "Well," said the mechanic, "I

meant eighty or eighty-five miles, like nearly all of them travel now-a-days." He said, "If you do not run your car over fifty miles, it will not be damaged in the least, but if you run it up to eighty or eighty-five for a few miles after the oil is thinned down, you would damage the bearings."

His remarks put us to thinking and to observing, and on that trip it seemed to us that at least fifty cars passed us running at a speed which could not be less than eighty or eighty-five miles an hour. Not one of them could have stopped in less than a quarter of a mile, and the only reason that serious accidents did not occur to any of them was that no careless driver came out of a cross-road in front of them, and that the folks they were meeting kept well to their side of the road. The serious part of this question is that so many otherwise responsible people seem to have no sense of speed whatever when they are driving their automobile. Their sole obsession is to get there and in the quickest possible time, and ninety-nine out of a hundred of them have little or no business when they do get there—nothing which could not have waited for a considerable time without any loss to anybody.

Our educational authorities, along with their other responsibilities, should undertake to teach the sense of speed to the young folks in the schools, and to be effective it would have to be commenced at a very early age.

NOTE FOR PHYSICIANS

Dr. James M. Northington, Editor of *Southern Medicine and Surgery*, of Charlotte, announces in his August issue that the Annual "Brush-Up" or postgraduate course for physicians will be held again this year. The tentative date set is September 24 to 26. The place, of course, is Charlotte. Doctor Northington says that "plans are now being laid for a strictly practical course of help in bedside and office medicine."

Public Health Should Come Through Public Schools*

By CHARLES F. CARROLL, JR., Superintendent of Swain County Schools,
Bryson City, N. C.

COMING before you, a technically trained group of health specialists who live by, in, and for those health concepts and practices about which I can have at best but partial knowledge, I naturally suffer a feeling of embarrassment. To add to this embarrassment, the presence of persons whom I know and by whom I am known makes it unwise, to say the least, for me to represent myself as an expert in any field of endeavor whatsoever. My friends would see through my attempt to do that.

I remember the story of the old woman who went into the side-show of a circus and saw, or supposed that she saw, a man read a newspaper through a two-inch board. (This was back in the days when the word *streamline* had not been coined and when women vowed that they would not permit the existence of cotton and woolen surpluses even if they had to encase themselves with three or four more petticoats). The old woman, looking first at the man who pretended to be able to read the newspaper through the two-inch board and then looking at, and feeling of, herself, got up in great excitement and screamed out: "Let me out of here; this ain't no place for a decent woman to be with these thin things on." I fear that the attempt to disguise expertness on my part would be as transparent as the old woman thought herself to be, and yet, I do feel that every man, who believes in the importance of health education, should stand up in every company and proclaim the belief that is in him, so that by common counsel and by common action we may accomplish that upon which we have set our minds.

It is my understanding that a public health officer is a person who is usually a graduate in medicine, but who, even though he be a licensed physician, is not a practicing physician. He is primarily a sanitarian who is engaged in arousing, stimulating, and guiding people to help themselves by "preventing disease, prolonging life, and promoting physical health and efficiency through organized community efforts for the sanitation of the environment." To effect this desired condition, the public health officer necessarily becomes a health educator in the hope and with the reasonable expectation that he will be able to guide public thought into his own channel of thought and into his own plan of action. He is successful in direct proportion to the manner in which the people respond of their own volition and not in proportion to his thinking and acting for the people. *Thus, I maintain that the public health officer is primarily a teacher or else he is something other than a public health officer.*

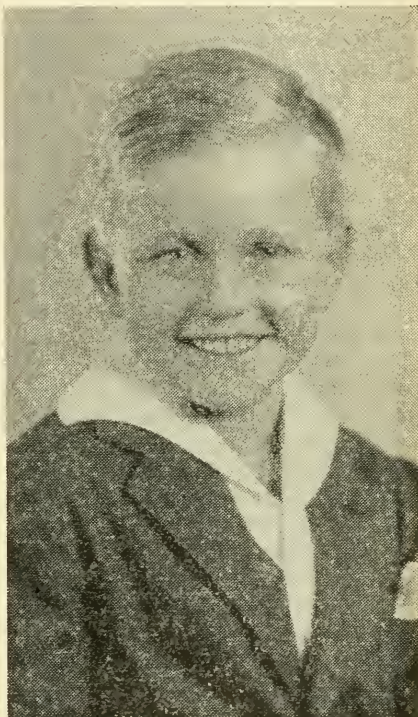
What progress have you made as teachers of health? With the supply of reliable statistics in your possession you can doubtlessly answer that question in a most satisfactory and concise manner. I can only give an opinion: Considering the youthfulness of your work, insofar as we measure time, I think you have accomplished much, particularly since you work with such a wide, diversified group of people; yet, I believe that you should "pull your punches," so to speak, from certain portions of your clientele, and pay more attention to the most receptive portion of your clientele. What do I mean? Just this—in order to popularize and establish your work you have

been compelled to cater too much and too long to the adult groups. You can defend yourself against this constructive accusation by stating that public health means the health of all the public; also, that your very existence as a governmental function depends quite largely upon the goodwill and esteem of the adults—the group which, financially speaking, makes the proverbial mare go 'round. But, looking at the problem of public health in the light of ultimate accomplishments, do you not think it better to start at the bottom? Working with adults you can do nothing more than to inform them, to give them knowledge of basic health facts; but there is no direct correlation between knowledge and habits. Because of its very nature, the school is best suited for improving habits, and habits are the foundation stones of healthful living. The schools reach the whole population, and there is no other means for reaching all the people so effectively.

There is a growing feeling among public school educators that the best way to attack the adult education problem today is not so much through an extensive adult education program such as has been in operation on a widespread scale in recent years but by preventing illiteracy and deficient traits and characteristics among the children. Teach the children in their formative years, and while there is greater probability of their learning, and appreciating, and practicing correct health principles and you have taken the proverbial stitch in time. Applying the same idea to your problem, do you not agree that it is better to make the approach to public health through the schools?

For an ideal school health program it is recommended that we have a personnel made up of several individuals who contribute to school health as specialists, to wit: school physicians, school nurses, physical educators, den-

tists, dental hygienists, nutritionists, psychologists or psychiatrists, and health educators. That is the ideal set-up, I said, but since the State of North Carolina is either unable or unwilling to provide that which tends towards the ideal, we shall stay on the practical level and recognize the probability that during the next few years in 95%



Robert Randolph Ball

Recently the State Board of Health had the pleasure of a visit from Mrs. Robert Randolph Ball of Pasadena, California, with her two fine sons, Robert Randolph, III., and Carl Reynolds. Mrs. Ball, formerly of Asheville, is the daughter of Dr. and Mrs. Carl V. Reynolds. While in Raleigh, Randolph championed the cause of public health, finding the work of the State Laboratory of Hygiene of extreme interest.

of the school districts in North Carolina public health physicians, nurses, and dentists will constitute the only professional personnel at the disposal of school health programs. Upon this assumption, therefore, and with the further feeling that you see therein what is probably your own best opportunity, I want to make a few suggestions in the hope of improving the present situation.

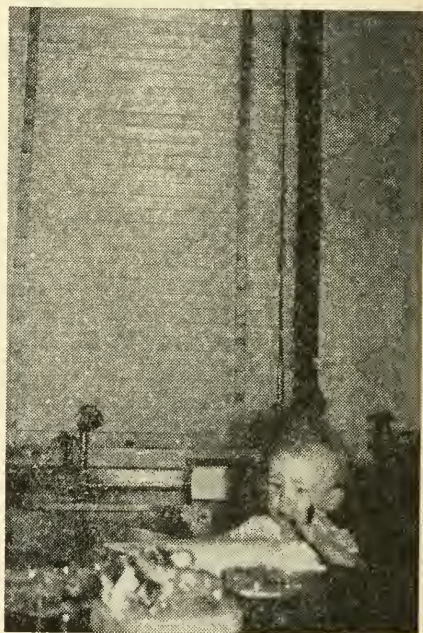
You yourself visualize the magnitude and the ramifications of the public health problem, but unfortunately there are too many potential deputy health officers in the role of school teachers and supervisors, even as I, who do not see or feel the problem as you do. Accepting the philosophy that "it is not an evidence of intelligence to do a thing yourself but to get somebody else to do it for you," why don't you take steps toward utilizing this potential strength and energy?

You reply, "O, it is the duty of the school administrators to put the deputies to work!" Yes, and no! We should see the problem and the opportunity, but we don't see it because you have not taken the steps to show us how we can help you.

As much health education will get into any school health program as the administration in charge approves, and the extent to which health education is approved will be in close proportion to the administration's own concept of the relative value of knowledges. If, for instance, the idea should prevail that the school's chief responsibility is to teach bare facts, then bare facts will receive greatest attention. On the other hand, if the school recognizes its chief responsibility to be training for citizenship, with due consideration to the child's physical, mental, social, and emotional welfare; or, as Herbert Spencer expressed it, that "the first requisite to success in life is to be a good animal," then the school will establish and maintain a militant health education program as some-

thing *basic* to the entire educational program and thus satisfy the *basic* needs of those for whom the school's function.

Equally desirable as the administrator's point of view is that classroom teachers themselves possess knowledge of, and manifest real, sympathetic interest in, a modern health education program. Every classroom teacher, for satisfactory service, according to opportunity and corresponding responsibility, should have a clear understanding of health; be ready to support and



State Health Officer for a Day

On a recent visit of Carl Reynolds Ball to his grandfather, Dr. Carl V. Reynolds, at the State Board of Health, he was shown all the courtesies befitting his age and honor, even to the extent of being allowed to occupy his grandfather's office chair and serve a day or a part as State Health Officer—a pose, no doubt, highly prophetic.

cooperate with reference to the general or special health work of the school; be keen to observe pupils intelligently in relation to health; and be able to correlate and apply health teaching in any situation in the school.

Too many of us administrators and teachers in North Carolina do not possess these necessary qualifications for conducting a satisfactory school health program. Why? Because the subject of health education was not included in our courses of preparation for the positions we hold. Why was it not included? Because it was not required for obtaining our teaching certificates? Why was it not required? We might as well seek to learn who killed Cock Robin.

For many years the State Board of Health has been carrying on a very acceptable type of health work within the schools, but all the time it has been in the name of the Board of Health. Simultaneously, there has been carried on in a fairly acceptable way a haphazard type of health work under the sponsorship of the State Department of Public Instruction. Cordial relations have existed all the while between the two departments and sometimes one department knew what the other was seeking to do. But, my dear friends, cordial relationships and spasmodic acquaintance with what each other is doing are not conducive to a productive school health program.

What we need in North Carolina today is a health education program within the schools that is militantly purposeful in every respect, and that is supervised by, and is responsible to, one definitely known agency. Therefore, I recommend that consideration be given to the idea of establishing in North Carolina at the earliest possible time a department or agency whose chief duties will be the promotion of health education in the schools by coordinating and making more extensive and intensive the various health activi-

ties which do, or can, contribute to a sound health education program. Whether this department or agency would function under the State Board of Health or the State Department of Public Instruction is of secondary importance. I am interested solely in satisfying a real *need*. For the directorship of this department or agency, I would recommend a person with public health training and, if possible, with some background in pure educational work.

The director of health education within and through the schools could be of invaluable assistance in many, many ways, some of which are as follows:

(1) In collaboration with the director of the curriculum, he could take steps toward placing health on a par with other subjects now being taught. I do not believe that health education can be taught, or should be taught, in a cold formal manner such as we would teach arithmetic or French, if it is to be made productive of satisfactory results; but I do believe that knowledge of health principles should be taught formally as a prerequisite to the practice of correct health principles. Therefore, I contend that we have gone far enough in treating health as an incidental matter, and that somewhere within the curriculum there must be found a place for that subject which is basic to all other learning.

(2) The director of health education could work with the division of certification with the view of requiring all in-service and pre-service teachers and supervisors and administrators to prepare themselves for conducting a health education program. As stated previously, too many of us now in service are not prepared to handle this responsibility simply because we were not required to be prepared. But it is not too late to prepare ourselves, and certainly it should be comparatively easy to make it mandatory that all

new teachers be thus prepared. Teacher-training institutions will co-operate readily once the fact is known that there is a demand within the schools for this type of training. And should teacher-training institutions begin this type of work, let us remember to insist that we keep too much theory out of the process. Also, let us insist that the teachers themselves be examples of health and that they become proficient through the laboratory method rather than through the lecture method.

(3) The director of health education could work most effectively with the division of schoolhouse planning. How many schoolhouses in North Carolina are not conducive to healthful living on the part of their tenants? Poor sites; incorrect orientation; inadequate or impure water supply; inadequate toilet facilities; improper lighting; inexcusable seating facilities; lack of fire protection, etc. A person's habits are influenced by his environment, and if we expect good habits to be formed by children let us assume our rightful responsibility and make it possible for them to form good habits.

In connection with the question of environment, let us remember that after all is said and done the upkeep of the school plant is of greater importance than the type of plant. Public health officers in North Carolina could render no greater service, in my opinion, than to encourage the employment of school janitors who do not have to go into a huddle with themselves to decide whether dirt is dirt. An incompetent janitor can thwart any health education program that may be undertaken. And while trying to make a sanitarian out of a janitor, why not require him to dress the part of a sanitarian. Cleanliness is as contagious as dirtiness, is it not?

In connection, too, with the question of a proper and sanitary school plant, I would recommend a careful inspec-

tion of the school plant at regular intervals. And why not give publicity to the percentage ratings? How much more important, if any, is the sanitation of a small cafe than a school plant housing scores and hundreds of children for even longer periods of time? Through the press you warn people of unclean eating and drinking places. Why not warn children and parents against unclean schools?

(4) The director of health education could work most effectively with the division of instructional service with the view of integrating and correlating the entire subject of health education with all other phases of education. How can natural science or social science instruction, for instance, be integrated with health education, and vice versa? Until health becomes *basic* to all other parts of the educational program, health is the step-child of the curriculum.

(5) The director of health education can work most effectively with the director of the budget. As long as there is any degree of discretion to be exercised by the director of the budget, you can figure that he is going to exercise himself in favor of those objects of cost in which he is most interested. The director of the budget can and should be interested in the question of health, if approached properly, and when that is done equipment and supplies necessary for a health education project will be provided. And in connection with this, I wish to recommend strongly that before the beginning of another school term you, as leaders of thought and action in matters pertaining to health, exercise yourself in behalf of the placing in every school in North Carolina an adequate first-aid kit and that you train at least one person in every school to administer first-aid intelligently. Have you stopped to think how many school communities in this rural state have no physician available and how easy it

would be for an injured child to be lost some time through lack of prompt and competent attention?

Summarizing—I feel that at the present time it is incumbent upon you to lead the fight in North Carolina for better public health. You are trained for the work and you are better trained than anybody else. Your work through the schools and with the teachers will prove the best means of approach to your task, but unless you take steps to

strengthen the schools and the teaching personnel you will not accomplish the greatest amount of good. I believe the thinking element of the teaching profession welcomes your attempts to make it more intelligent for the job at hand. Why not use us as your partners.

* Address delivered by invitation to the North Carolina State Health Officers Association, at Asheville.

Nurses: A Historical Sketch

By MISS JOSEPHINE KERR, R. N.

THE young woman of today who enters a school of nursing begins her work with the heritage of an ideal of beauty and tenderness with which the human mind has endowed woman from the beginning. As she studies the fascinating pages of her history of nursing, she finds there a galaxy of noble names of women and men, who by their lives as nurses have made the world a better, safer place to live in. She will learn also that they have built, with unselfishness and intelligence, a foundation upon which has developed a profession which demands the finest qualities of young womanhood.

The profession of nursing as we know it today is comparatively young, but as an art it is one of the oldest. Nursing had its beginning when the world's first mother cared for and nursed her child. For them, the helpless ones, she learned to create means of meeting emergencies and preventing them; then, the successful mother, out of the kindness of her heart, passed along the results of her experiences and in this simple, practical way definite methods of nursing procedures were given to the world.

Just as Christianity raised woman to the dignity she enjoys today, so did Our Lord, when He came on earth,

bless the art of nursing and make it a religious duty, so that it was no longer only loved ones who were ministered to, but all who were sick and needy. Many of the good women of that time were so converted to the ideals taught by Our Lord they began to work among the poor, going from house to house, making friendly visits. Poverty is so closely aligned with sickness that they found many occasions to render nursing service, thereby making themselves pioneers of our present day visiting nurse service. The first and most famous of this band was Phoebe, a friend of St. Paul, who in the year 60 A.D. became the world's first district nurse and deaconess. Until the third century the world relied upon deaconesses for skilled nursing service and today we still have the deaconess nursing orders.

In the beginning of the third century a group of noble Roman women, who were converted to the faith, were so imbued with its ideals they dedicated their lives to the care of the poor and sick. St. Fabiola turned her palace into a hospital and nursed the patients herself. St. Paula established hospitals at home and abroad and not only nursed but passed along her knowledge so that she is considered one of the first nurse educators in the world.

Following this era men too became nurses and by the ninth century monasteries had become centers of nursing as well as educational institutions. During the Crusades monks played a prominent part in caring for sick pilgrims as they traveled to the scenes of Our Lord's life and part of the thrill of a knight of this age was found in protecting and nursing the pilgrim on his way. During the Crusades and the organization of the religious orders such names as St. Francis of Assisi, St. Clare, St. Elizabeth of Hungary, St. Hildegard, St. Catherine of Sienna are a few of those whom we in the twentieth century boast of as nurses and their followers members of our profession today.

With the passing of the age of chivalry and the abolishment of monasteries, the art of nursing as it had existed for centuries, entered a decline and the process of reconstruction was difficult. In this dark period of nursing, a saintly priest, Vincent de Paul, had a vision of social reconstruction. His unselfish work among the poor to alleviate their suffering won him the honor as the first to inaugurate a system of social service and at the same time the gratitude of humanity. Out of his efforts developed the order of the Sisters of Charity, an order that has filled a human need for three hundred years. Nursing reform had another powerful champion in the 17th century, whom we cannot fail to mention, the novelist Charles Dickens. His forceful pen did much to induce public opinion to bring about needed changes in the care of the sick. In Martin Chuzzlewit his pen portraits of Sairey Gamp and her colleague, Betsy Prigg, depict the nurse of that time.

May 12, 1820, was the birthday of the founder of modern nursing, Florence Nightingale. Called by some the patron saint of modern nursing, Florence Nightingale's life holds out to us a high ideal of devotion to nursing, an

unselfish sacrifice, without which a nurse's life is merely a daily round of arduous toil. Reared in a home of wealth and culture, like Phoebe and Fabiola of old, she heard the call to service and prepared to dedicate her life to the care of the sick. The work that Florence Nightingale did in Scutari among the soldiers of the Crimean War is one of the finest chapters in our history. Perhaps you are familiar with the story of her visits at night through the wards with her lamp, when the soldiers kissed her shadow on the wall. This story was the inspiration for Longfellow's immortal tribute to her in his poem, "Lady of the Lamp."

"A lady with a lamp shall stand
In the great history of the land
A noble type of good
Heroic womanhood."

We come now to the establishment of modern nursing in America, the development of schools of nursing and organizations within the profession. With the growth of the number of graduate nurses alumnae associations were organized and these nurses, realizing the benefits of such contacts, began to see the advantage of broader contacts. Included in the features of the World's Fair in Chicago in 1892 was a congress of hospitals. In this congress a nursing section was presided over by Isabel Hampton, principal of Johns Hopkins School of Nursing. The outcome of this group meeting was the organization of the National League of Nursing Education, that body which outlines the curricula for our schools today. In 1896 the American Nurses Association was organized; every other nursing organization is an integral part of the A. N. A. and our membership for 1935 is 110,626, which perhaps represents the largest body of professional women in the world. About 1900 state associations began to organize. In Raleigh on October 28, 1902, the North Carolina

State Nurses Association was begun by Miss Mary Wyche who was the first President and who is now honorary president.*

Prior to this date registration for nurses had been discussed in this and foreign countries and we are exceedingly proud that North Carolina was the first State in the Union to successfully pass the nurses registration law—in 1903. Cape Town in South Africa was the first country to pass a registration law—in 1891. What do we mean by registration? It is that process by which the public and the nurse are protected by law from those who cannot or do not come up to a standard set by state examinations. Only graduates of schools fully accredited by the Standardization Board are permitted to take these examinations. In North Carolina our schools are visited and checked regularly by our educational director, who reports her findings to the Standardization Board. These reports are checked with the requirements and the schools are graded accordingly.

The nursing profession exists only because of a need of humanity and it is the aim of this profession to meet that need in the finest possible way. The trend now is toward placing nurse education under the supervision of colleges and universities. The actual nursing care of a patient is one of the finest of fine arts and a nurse should be well prepared in theory and practice. In the United States there are about 1,600 schools of nursing; a number of these are offering a combined liberal arts and nursing program leading to an A.B. degree. Our North Carolina law requires at least a high school education for entrance to our schools of nursing, but girls who have had college work are given the preference. Our State Board of Nurse Examiners has requirements which must be met by our schools of nursing before a nurse is permitted to take examinations, not to make it hard for

her but to assure her of sufficient training and you of capable nursing service.

Society should give the same serious consideration to the education of a nurse that it does to members of other professions because it is the nurse who carries the responsibility of the patient's welfare between the doctor's intermittent calls; because the nurse is with you, carrying a grave responsibility at the two biggest moments in your life—birth, when she wants to fall down and worship at the sight of a new little life; death when not infrequently she alone is there to give you bodily comfort and spiritual consolation.

It is a long way from Phoebe to the nurse of the Twentieth Century; from St. Fabiola's hospital to our magnificent modern institutions, yet we have before us always the great task of still trying to perfect our art and improve our knowledge of nursing. We urge higher education for our nurses but we do not forget that the root of all real nursing is ever the inherent nursing instinct with its eagerness to actually serve and help those who are sick and needy, with heartfelt human interest and sympathy.

In closing, the thought that I wish to leave with you is expressed in the following lines, which to my mind epitomize the real ambition that dominate the life of every real nurse.

"My life shall touch a thousand lives

In some way 'ere I go

From this Dear Land of Promise to
The Land I do not know.

So this is the prayer I always pray,
And this is my hope each day,
Let my life help the other lives
It touches by the way."

—*Southern Hospital.*

* Miss Wyche died at her home near Henderson Saturday, August 22, 1936. Her name and memory will be honored throughout the South for a long time to come.—Editor.

Dead at Twenty

By DAVID I. SUGAR, M.D.

THIS is the hundredth anniversary of the "Pickwick Papers" and in common with many of you lovers of Charles Dickens we re-read them this past winter holiday season. As a story there is no more delightful entertainment. On re-reading it you probably have all yearned for the return of those good old days. Life in the Pickwick Papers of a hundred years ago seemed beautiful and tranquil. Merrie England! But was it? Remember that in this book Dickens describes the doings and the leisurely life of the gentry whose time for the most part was spent in the pursuits of sport. In fact the Pickwick Papers was intended by the publishers to be a running chronicle, subordinate, and to supplement a series of prints and wood-cuts, illustrating the sports and hobbies of the English gentleman. Dickens was hired for this job as an afterthought after several of the better known hacks of the publisher had turned down the assignment. The illustrations were planned first and were of the primary importance. Therefore the "Pickwick Papers" are in no part or intention a true cross-section picture of the times in which Dickens lived. As a hired man Dickens did his job as directed, the same as any paid workman. However, through these papers Dickens leaped to fame and fortune and in later works such as David Copperfield and Oliver Twist, he gives a truer, more factual picture of life in those so-called good old days. His living assured, genius evolved, mirroring the life of the masses.

History, or interpretation of times, depends entirely on who is writing. The ecclesiastical gentlemen will have us believe in all honorable sincerity that they influenced the stream of history; the poets and writers will have

it that they with their songs and novels limned the leads to light; the military man will claim that with his mass killing, elbowing out possibly greater killers, the louse, the mosquito, and the rat, he directed civilization. The philosopher with his belly-ache and his ranting, howling through his nose, thinks he has done much. The inventor and the tradesman and the explorer and the transportation engineer could all claim ascendancy and priority in developing the good life. The medical man has done more than all combined to make the modern world more livable, to establish living on its present easy basis.

Let us look at those good old days through the eyes of a doctor. Let us look at the times of Dickens and the times before him from a medical point of view.

Living in the present time and under modern medical organization we take many things for granted and we have to go back and recollect how things were in another day to appreciate our advantages. One hundred and seventy-five years ago 50 per cent, or half, of the English population died before the age of twenty. The working class had even less chance.

In factory towns like Manchester, England, the youthful population was physically worn out before manhood, and the average life of the laboring classes was only 22 years. The working class was dead at 22 years of age. Think of it! Long hours of employment, drunkenness which gave the only escape from dreary reality, undernutrition, lack of sanitation and bad living conditions, and epidemics were the causes. Medical science has changed this.

Contrast that with the present. Today any child, black or white, rich or

poor, born in Detroit has an expectancy of life of 52 years. Or, to say it another way, they will live two and a half times as long as in the good old days.

In the old days of that time every one was dirty. Even kings had no bath rooms or wash stands, and seldom washed at all. A Belgian authority of the 18th century advised that if bathing were too difficult an undertaking, people ought to put on clean linen at least every six weeks. Under these circumstances the entire population was lousy; to be lousy was no disgrace. Even kings had lice.

In the good old days, the caress of a paramour, the bite of a louse, and typhus or something, all too frequently coincided. To be romantic then was to be brave.

Diseases weave in and out, increasing and decreasing in importance in the stream of history. You never hear of a case of the black death, the great plague, in this country. It is hard for us to realize that this plague, the black death, that began in the 14th century and lasted several hundred years in Europe killed 25,000,000 people.

When this plague of the black death reached London in 1665 every other house had a death. A mother was taken at this house. A baby at this next. A husband next door. On the average every other house must give a corpse. Death stalked abroad. Death was at the harvest. So ghastly was the death rate there wasn't time to bury the dead in the usual manner. A wagon was driven down the street and the driver shouted, "Bring out your dead," "Bring out your dead." The dead were gathered and piled in the wagons like cord-wood and buried in a common grave. This was in the good old days.

The doctor has eliminated these plagues in civilized modern countries. He has discovered a serum that both prevents and cures this black death.

He has shown how this black death was spread by the bite of the flea that lived on rats. Killing the rats got rid of the fleas and the means of the spread of the infection. You never hear of a case of this plague in this country any more. Thus medical science and medical progress protect you.

Before the time of a Dr. Jenner, the English physician who gave vaccination against smallpox to the world, it was unusual to meet one in London whose face was not marked by smallpox. There was a popular belief that one who had cow pox was immune to smallpox. Jenner put this belief to a scientific test. The result was the discovery in 1798 of vaccination, and this practically secured the eventual abolition of this disease. In Detroit we have lately gone several years without a single case of smallpox.

Diphtheria used to be a dreaded disease. It still is for that matter, but even when developed to an alarming extent it can with antitoxin be successfully controlled. Indeed it is the unusual thing nowadays to lose a case. Von Behring, a German, and Kitasato, a Jap, developed and prepared a serum, an antitoxin for the treatment and cure of diphtheria. As a result today, 97 per cent of the diphtheria cases that formerly would have died are saved from a horrible death. This terrible disease of childhood has been conquered.

The good old days! We would not return to them. They existed for the most part in the mind of the narrator, the chronicler. And most writers live in a phantasy world, and therefore as history they give us their dreams.

The good old days were days of starvation, and plague, and malaria, and dirt, and infant mortality, and early death.

These present days are the good days, and medical science and the doctor made them good, and keep them good.—*Detroit Medical News.*

"Rats and Our Health" No. 2

By GEORGE B. LAY, JR., *Biologist, U. S. Biological Survey, with Headquarters at N. C. State College, for Rodent Control in N. C., S. C., Va., Georgia and Florida*

RATS—the common variety or wharf rat—carries diseases into our homes by means of both fleas and mites, and, in tropical countries these fleas and mites, carried by rats, cause serious outbreaks of such scourges as typhus fever and bubonic plague. In North Carolina—and we should be thankful of the fact—these two diseases are not prevalent and outbreaks are sporadic and usually quickly stamped out. Rabies is another disease which can and is sometimes transmitted by rats.

Endemic typhus fever has been recorded in North Carolina in several different towns within the past year. In three or four towns in this State, people have died due to the fever, which is carried by a mite which is sometimes host upon the common rat. In all instances, which were called to my attention in North Carolina last year, a rat campaign was put on in the community and rats were practically eradicated therein. Of course, the infested places had to be cleared of the mites and that was taken care of by trained entomologists. Since the rat campaigns mentioned, no cases of the fever have been reported in those localities and no further deaths. In Charleston, S. C., particular care is taken by Dr. Leon Banov, city health officer, to bait several blocks in all directions from any typhus case, immediately upon suspicion of the case. Effective but fairly safe bait is used by the City of Charleston, recommended by the Federal Government. Other cities are fighting for better health in similar ways, by control of the rat.

History tells us that London suffered a loss of half its population years ago, when a plague, known as "black death" swept England and Europe. That

plague was nothing in the world but bubonic plague, a disease carried by fleas and with the fleas travelling about on the rats' bodies. Bubonic plague has killed more people than all the wars of history combined; and that we know to be true. If the many diseases, which rats do carry but which we do not fully understand, could be attributed to rats, we would find a much higher total of human suffering and deaths chargeable to the animal.

It is perfectly true that "black death" does not stalk the world as it did for 50 years of the fourteenth century, for our health authorities are now actively fighting all diseases and our doctors are better equipped and instructed in means of prevention of scourges. But, if it were not for Federal, State, county and city health officers, and cooperation from many other sources, we of today would still be faced with terrific outbreaks of such diseases as bubonic plague. Epidemics in San Francisco, Seattle, Hawaii and New Orleans, since the turn of the century, were stopped before reaching serious proportions through measures taken by the United States Public Health Service and other cooperating agencies.

As I stated at the beginning of this article, rabies are carried by rats. Especially, where a small fox terrier attempts to kill a large wharf rat it is likely that the rat, if infected with rabies, will pass the disease on to the other animal. In fact, we do not know the seriousness of this rat-dog relationship with regard to rabies. We do know, however, that the disease can and is passed on from rat to dog and then to man. Also, cats are known to have transmitted this disease from rats to human beings.

We might list a number of diseases which rats help to spread, to our suffering and harm, but space forbids. We do wish to reiterate again, that rats can be largely decreased in numbers if we will take the time, care and pains to rat-proof, clean-up and stay cleaned-up. Keep your yard and premises as clean as you would want your dishes on your table to be.



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**HEALTH CENTER FOR COLORED PEOPLE NEAR LINDEN,
CUMBERLAND COUNTY**

The above photograph is the first one we have received of a group assembled at one of the Maternity and Infancy Centers recently established through the aid of Social Security funds, obtained from the Children's Bureau at Washington. A similar opportunity is being offered to more than sixty other communities in the State at present.

Dr. M. T. Foster, Cumberland County Health Officer, who is in charge of this Center and several others like it in that county, sent us the picture with the following comment: "All of the persons shown in this picture were present at the Linden Health Center last month. At these Centers we give prenatal care, well-baby guidance, advice as to diet and general care. In addition, the Center is used as an immunization point, particularly for diphtheria and smallpox."

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FREE HEALTH LITERATURE

The State Board of Health publishes monthly THE HEALTH BULLETIN, which will be sent free to any citizen requesting it. The Board also has available for distribution without charge special literature on the following subjects. Ask for any in which you may be interested.

Adenoids and Tonsils	German Measles	Scarlet Fever
Cancer	Health Education	Smallpox
Constipation	Hookworm Disease	Teeth
Chickenpox	Infantile Paralysis	Tuberculosis
Diabetes	Influenza	Tuberculosis Placards
Diphtheria	Malaria	Typhoid Fever
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SPECIAL LITERATURE ON MATERNITY AND INFANCY

The following special literature on the subjects listed below will be sent free to any citizen of the State on request to the State Board of Health, Raleigh, N. C.

Prenatal Care (by Mrs. Max West)	Baby's Daily Time Cards: Under 5 months;
Prenatal Letters (series of nine monthly letters)	5 to 6 months; 7, 8, and 9 months; 10, 11, and 12 months; 1 year to 19 months; 19 months to 2 years.
Minimum Standards of Prenatal Care	Diet List: 9 to 12 months; 12 to 15 months; 15 to 24 months; 2 to 3 years; 3 to 6 years.
Breast Feeding	Instructions for North Carolina Midwives
Infant Care. The Prevention of Infantile Diarrhea	
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Notes and Comment

By THE EDITOR

IN this issue of the HEALTH BULLETIN, we are publishing a paper written by Dr. H. Lee Large of Rocky Mount. Dr. Large was for several years City Health Officer of Rocky Mount. He has been a member of the State Board of Health since 1931. The subject of his paper is SUGGESTIONS FOR A PROGRAM OF SYPHILIS CONTROL. We hope that all of our readers will go over very carefully Dr. Large's paper and study his suggestions. In addition to the publication of Dr. Large's paper on this subject, we are publishing extracts from editorials in the *Wilmington News* and the *Wilmington Star*, the *Kinston Free Press*, and a very recent article from the *Goldsboro News-Argus*. All of these papers and many others in North Carolina today are publishing important information for their readers on the subject. The State Board of Health, in cooperation with the Federal Health officials, are making plans to deal with the whole problem of venereal disease control in a scientific and effective manner. It is very necessary for the public to be informed before any progress can be made.

About seventeen years ago, Dr. W. S. Rankin, who was then State Health Officer, in cooperation with representatives of the United States Public Health Service, secured the passage of

an effective law applying to each county in the State. That law required careful reporting from the medical profession and attempted to stop the practice of counter or drug store prescriptions by department store salesmen and soda fountain clerks. An excellent start was made towards the control of these diseases, organized facilities were established in a number of the State's larger cities where indigent and itinerant patients could be effectively treated, as well as the local sufferers. After two or three years efforts, however, for various reasons, chief of which was lack of funds, control measures were allowed to lag. So far as we know, the law has never been repealed, but was simply made impotent through restrictions placed on county expenditures, and through the lack of interest on the part of certain groups of the people who should have felt the gravest responsibility for the work. The excellent beginning made at that time is all having to be done over again. Practically a new generation has grown up during these seventeen years who know nothing about the efforts made then. The most encouraging feature in the present situation is the widespread interest of the newspaper fraternity of this State. The State Board of Health now, as always, feels its responsibility keenly and will exert every effort within its power to eradicate these diseases.

FOR several years we have been bemoaning the fact that Eastern North Carolina as a whole had not developed its dairy industry. Much has been written by the agricultural people, as well as the Board of Health folks, about the lack of a sufficient supply of fresh milk for the people of our eastern sections. The editor of the *HEALTH BULLETIN* has contributed his mite towards the discussion in the past. For about two years, he has had nothing to say. As late as three years ago, on a trip of 100 miles east of Raleigh, the editor was able to see from the public highway going and coming only one lone milk cow, with the exception of a dairy herd near one of the larger towns. During the past July and August his work took him through about twenty-five eastern counties.

The purpose of this sketch here is to suggest to the folks over at the Agricultural Department that they make a new dairy survey in eastern North Carolina. There was hardly a mile of the trip traversed but what numbers of fine milk cows were in sight at all times. They were tied out by the roadway and were in bunches and singles. In fact, in the very shadow of the Wright Memorial on Kill Devil Hill, he observed a large herd of dairy cattle, right on the banks, facing the Atlantic Ocean. The east has certainly aroused itself, and while there may be some places throughout the section where there is still a scarcity of cows, such places are becoming fewer and smaller. A fine illustration denoting the radical change in sentiment throughout the east may be noted in a story told the editor a few days ago. A State official who had visited the manager of the Caledonia Prison Farm in Halifax County informed the editor that on an official visit to that farm he was discussing with the manager

the problems of milk supply, dairy regulations, etc. The prison farm manager told him that he did not want anything to happen to lessen the supply of milk. The manager said that "we get the prisoners who are not in good health, who have bad teeth, and who are otherwise below par and do not make good road workers," etc. He said, "I have found that by giving these men milk in abundance as soon as they arrive, that within a few weeks on such a diet, with the necessary vegetables and other accessories to the milk diet, they improve in health and weight, and make good workers." This man had found for himself what nutritionists and health officials, physicians, and agriculturalists have found for themselves and have known for a long time. It is to be hoped that the eastern section of the State will develop its commercial dairy interest as well as provide for an abundance of dairy products for every family in the section.

Some years ago, the editor had some lively correspondence with the officials of one of the greatest dry milk canning establishments in the country. In the correspondence, the editor urged them to establish a factory in North Carolina for the canning of their products, insisting that this State had the climate suitable almost for the year round outdoor care of dairy cattle and an abundance of proper food for the cattle. The summation of the correspondence was that the officials of this many million dollar corporation would consider coming to North Carolina only at some future time, if they could be certain that the State was interested enough in the production of dairy products to guarantee a year round supply of raw milk for their factories.

By this, the editor feels that the eastern section is certainly on the way with its dairy industry and nothing could promise more for the health and prosperity of the whole section.

IN a communication to the editor. Dr. James M. Northington, of Charlotte, Editor of *Southern Medicine and Surgery*, calls attention to a matter of importance to all athletes and their families and friends. Says Dr. Northington: "The football season is at hand. A lot more harm than good is done by hasty first-aid. Many a broken neck results fatally because somebody grabs the head and gives it a jerk. Many a simple fracture is made compound." This caution should be exercised not only on the football and baseball fields, but in all other accidents. It is well to remind again that including homicide and deaths from automobile accidents there are around 2,500 deaths annually in this State from violent and accidental causes.

In the case of accidents on the highways it should be realized by everyone that the first thing to do is send a call

for a competent physician and then guard the victim from meddling handling. See that there is no danger from the wreckage catching fire. If the patient is conscious and complains of pain from a broken leg or arm, etc., the limb should be immobilized. Of course, any bleeding should have instant attention by ligation if possible or by pressure when not possible to stop by ligation.

In all accidents to football players the victim should not be touched until a competent and experienced physician reaches him. That should not require more than a few seconds. There should be in attendance even in all practice games at all times an experienced physician. Many a promising youth has given up his life in a practice game for the lack of instant medical attention. You may not be able to help the victim, but you can refrain from making the injury worse.

Suggestions For A Program of Syphilis Control

By H. LEE LARGE, M.D., *Rocky Mount*

(Dr. Large is a former City Health Officer and is now a member of the State Board of Health.)

PRESIDENT ROOSEVELT, in his message to Congress, June 8, 1934, said:

"Among our objectives I place the security of the men, women, and children of the nation first."

This security for men, women, and children concerns itself primarily with:

Decent homes to live in,
Opportunity for productive work,
Safeguards against misfortunes
which cannot be wholly eliminated."

In their onward march of progress men and women constantly strive for

better homes in which to live, and to improve the conditions under which they work, for it is by productive work that most people live.

They are not content merely with subsistence, and protection from the inclemencies of weather, and against the wilds and ferocities of nature. They want comfort and convenience and beauty of surrounding in their homes, and safe, productive employment, and they want to be protected from the hazards that mitigate against these achievements—in short, men and women want to be happy.

Of such hazards physical disability occupies a first place. Physical dis-

ability usually results either from injury by external physical forces, or from the ravage of disease.

Before the day of required safeguards against injury from industrial mechanical devices, and the education of workers against accidents, the toll of industrial injury constituted a much greater hazard than at present.

Prior to double tracking and the development of safety train control devices in railroad transportation, destruction to both life and limb was great.

Of modern devices of human destruction the automobile is outstanding, and the death rate and permanent injury lists resulting from this agent in recent years is awakening a public response that bids fair to bring it under control.

But the captains of the hosts of death and human disability, since time immemorial, have been the infectious diseases, that is, those diseases caused by minute living things known as germs or microbes, and the intangible viruses.

Since the turn of the century Asiatic Cholera, Bubonic Plague, Yellow Fever, and Malaria have yielded to the advance of sanitary science.

Through the combined forces of medicine and public health the ravages of Smallpox, Typhoid Fever, Diphtheria and Tuberculosis have been reduced directly proportional to public co-operation. We can justly be proud of our record of control of these diseases in North Carolina.

There remains, however, a plague that annually disables one-half million Americans, and which we have failed, or may we say refused to attack.

A plague that does a hundred-fold the damage of the dreaded infantile paralysis, by which disease we, in North Carolina, became so much frightened last year.

A plague that in 1934, disabled five times as many people in the United

States, as did permanent injuries from automobile accidents; and furnished, in the same year, 10 new cases for every one case of diphtheria, for every three cases of tuberculosis, and for every five cases of scarlet fever, that occurred.

A plague that is responsible for 10 per cent of all insanity; 18 per cent of all diseases of the heart and blood vessels, and for many of the still-births and the deaths of babies in the first weeks of life.

This plague that is wrecking lives, and filling institutions all over the land with its insane, blind, feeble-minded and unemployables, and the conquest of which is the next great objective of public health, is Syphilis.

Syphilis has occupied a position of security from attack as a public health problem because of the traditional public view that it is a venereal disease, and therefore, a matter of immorality, and not to be thought about, much less talked about, by nice people. This moral prudery must be replaced by rational public appreciation and understanding that syphilis is a widespread, infectious disease, ranking with cancer, tuberculosis and pneumonia as a cause of death.

Syphilis is caused by a corkscrew shaped, living organism, the spirocheta pallida, which has a rather short existence outside the body, because of its delicacy or low viability. It can only live on moist surfaces, and does not resist drying or disinfectants, which combination of weakness makes it a disease of intimate contacts, for only in the mouth and vagina, and under the foreskin, are found, year in and year out, the conditions which perpetuate the infection.

Syphilis is usually transmitted in sexual contacts, or by kissing, but may be acquired by contact with infected moist articles, such as dressings and articles of common use, as moist towels or drinking and eating utensils.

It is characterized by a very insidious course, and because of this the victim of the disease may never have his suspicion as to his condition aroused until he has progressed to some disastrous late result such as beginning total blindness, paralysis, irremedial heart disease or insanity.

It is a disease of long chronicity, tending to relapse by periods as the underlying lesions of the disease pass through definite cycles of activation and suppression.

The disease is difficult to eradicate from the body once it has gained entry.

The first visual manifestation of syphilis is a sore or lesion appearing at the point of entry of the infection. This initial sore usually appears within 12 to 40 days after exposure. It may be a more or less inconspicuous affair, appearing on the genitals or about the lips and mouth, usually not being very painful, and runs a slow course, lasting for from three to four weeks. This is known as the initial or seronegative stage of the disease, the term "seronegative" meaning that the disease has not progressed far enough to cause sufficient reaction in the body to make the blood positive for the well-known Wassermann test. Diagnosis in this stage, however, can accurately be made by finding the squirming corkscrew shaped spirochete in the sore by the dark field examination, which examination should always be made on any sore arousing suspicion of the disease.

It is urgently important to the victim that diagnosis be made at this stage, because this is the period during which opportunity is greatest for cure from adequate treatment. If treatment be delayed until the blood Wassermann becomes positive, the opportunity for cure is reduced from about 86 to 64 per cent.

The stage of the initial sore is usually, though not always, followed in a few weeks by an eruptive stage,

characterized by a skin eruption, or breaking out, over the entire body and may resemble measles or chickenpox, being generally accompanied by some fever, headache and sore mouth or throat. The blood Wassermann has become positive by this time.

Following this period of visually obtrusive lesions, that is the initial sore, and the skin eruption, syphilis assumes a very unobtrusive visual role, during which, because sores have disappeared, the unwary victim believes he is well, but in reality he has entered the period of latency, or chronic syphilis, the period during which the course of the disease is run below the threshold of attention. It is during this period that, unless checked by adequate treatment, the disease does its most destructive work. No structure of the body is immune to the termite-like burrowing attack of the syphilis germ, with widespread tissue destruction and irreparable damage to vital organs, the end result. The heart, arteries, brain and bones are apt to receive the brunt of attack in latent syphilis.

It may truly be said that the treatment of latent syphilis is the diagnosis and adequate treatment of early syphilis, because there is little hope of other than alleviation to the victim of the disease who first presents himself for treatment with advanced heart and blood vessel damage, extensive involvement of nervous structures, or beginning insanity.

In attacking syphilis as a public health problem, the combined efforts of physicians, public health officials, educators, and the public are required.

The fundamental approach, I believe, is education. All people should have adequate appreciation and understanding of the disease as an infectious disease problem. The public should substitute rational thinking for moral prudery.

Education of the adult population is necessary, and should be pursued in

every practical way, but I believe our greatest teaching effort should be directed among the youth of the land, and that fundamental concepts of the disease and its control should be taught in the public schools, because it is here that the greater percentage of American youth gets its training for future citizenship. In North Carolina, it is now compulsory that children in the public schools be taught the physiologic effects of alcohol and narcotic drugs, and certainly more people are not ravaged by these drugs than by syphilis.

Mr. and Mrs. Average Citizen, and their sons and daughters of upper high school age, should know that syphilis is a very treacherous infectious disease having a more or less insignificant beginning so far as concerns visible outward manifestations, and pursuing an insidious but inevitably dangerous and destructive course, unless checked in its earliest detectable beginning.

They should know that even in the earliest detectable stage the disease is hard to cure and requires from one to two years of adequately systematized and administered treatment, even after all visible sores have healed.

They should know the meaning of "Wassermann test" and dark field examination.

They should understand the meaning of, and necessity for spinal fluid examination, that is, that it is necessitated by involvement of the brain and spinal cord structures by the disease.

They should know that a child can probably be born of a syphilitic mother, free of the disease, provided the mother has received proper treatment during the first five months of her pregnancy.

Mr. and Mrs. Average Citizen, and their sons and daughters of upper high school age, possessed of the fundamental facts concerning the disease will not permit themselves to be told to wait for a positive Wassermann to

determine whether a suspicious sore is syphilitic or not. They will demand darkfield examination.

They will not permit themselves to believe that six or eight shots of 606 will cure them of syphilis.

Second to education, the next fundamental in attacking the control of syphilis, is that adequate and well directed treatment should be available to all infected persons. The indigent should be treated free, and the low wage earner should be treated at a cost commensurate with his ability to pay.

Since the inadequately treated syphilitic, in a large percentage of cases, ultimately becomes a charge of society, it seems only fair that if public facilities are provided for treatment the infected individual should be compelled to take advantage of it.

The physician undertaking the treatment of syphilis assumes the inescapable responsibility to his patients of thoroughly familiarizing himself with modern concepts of diagnosis and the pathology of the disease, and with the action and value of the medicinal agents used in treatment, and the further responsibility of familiarizing and equipping himself with modern diagnostic apparatus.

Surgeon-General Paron, of the United States Public Health Service says:

"Syphilis must be the next great plague to go. Our children will hold us criminally careless and incompetent if, with the means at hand, we fail to end this scourge within our generation. This is one contribution we know how to make toward a safer and happier world for them to live in."

We desire to commend some of the county and city health officers who are making an earnest effort to immunize the children of their communities against diphtheria at this time. News of such activities coming through our clipping services is gratifying.

Fifteen Year Record of Diphtheria Cases and Deaths Occurring In New York State and In North Carolina

By J. C. KNOX, M.D., *State Epidemiologist*

THE group of figures given below for New York State (exclusive of New York City) and North Carolina should not only be of interest to all health and quarantine officers in North Carolina, but to all of our citizens. The success of immunization against diphtheria is clearly shown by the New York statistics. Although North Carolina has made considerable progress, there is still much to be achieved in the eradication of diphtheria from our State. Naturally, conditions in our State are different in many respects from those existing in New York State. But a study of these

figures will offer convincing evidence that we may solve our diphtheria eradication problem in only one way and that is exactly as New York State has done—through immunization.

The New York figures offer proof that diphtheria may be controlled by the immunization of 33% of pre-school children and 50% of school children. Our efforts should be directed toward this goal.

To immunize such a large per cent of our children population will require much time and effort and the expenditure of considerable money, but the results will be worth all that it costs. The comparative figures follow:

North Carolina and New York State (exclusive of New York City) Diphtheria Cases and Deaths, with Rates, per 100,000 population, 1921—1935, inclusive.

North Carolina					New York State				
		Case				Case			
Year	Cases	Rate	Cases	Rate	Year	Deaths	Rate	Deaths	Rate
1921	5,136	196.4	11,919	243.3	1921	365	13.9	811	16.5
1922	8,136	307.0	8,441	176.0	1922	510	19.2	581	11.6
1923	4,671	173.9	7,040	145.8	1923	331	12.3	455	8.9
1924	4,095	150.4	5,883	113.2	1924	323	11.8	369	7.1
1925	3,437	122.2	4,370	82.5	1925	310	11.0	338	6.4
1926	3,198	111.9	3,647	86.6	1926	263	9.2	250	4.7
1927	3,034	104.7	3,914	71.2	1927	278	9.5	263	4.8
1928	3,826	130.3	2,898	52.0	1928	355	12.0	221	4.0
1929	4,337	145.8	2,256	40.0	1929	324	10.8	193	3.4
1930	3,248	102.5	1,615	28.0	1930	275	8.6	144	2.5
1931	3,156	98.1	1,256	22.0	1931	230	7.1	95	1.6
1932	1,895	58.4	654	11.3	1932	165	5.1	60	1.0
1933	2,497	76.2	710	12.0	1933	218	6.6	65	1.1
1934	2,114	63.9	442	7.4	1934	207	6.3	31	.5
1935	1,720	51.5	386	6.5	1935	158	4.7	35	.57

(1935 N. C. population estimated.)

(1935 N. C. population estimated.)

The Importance of Birth and Death Registration

By H. G. WILLIAMS, M.D., U. S. Census Bureau

THERE is an increasing flood of requests for certified copies of birth certificates by residents and former residents of the State of North Carolina. In many instances these are not available because of negligence of doctors and those in attendance. Failure to register births cause much discomfort and trouble when the child tries to enter school in larger cities, or obtain employment in many industries, or attempts to enter military service. More and more industries insist on copies of birth certificates to establish proof of age before employment may be secured.

The Bureau of the Census at Washington, D. C., has sent a representative to the State of North Carolina who will carry on a promotional campaign for the State Bureau of Vital Statistics. Dr. H. G. Williams will interview local registrars, doctors, and undertakers in most counties of the State in an attempt to secure complete birth and death registration.

Many residents of North Carolina do not know the value of birth and death registration. Many doctors are lax in completing and turning in birth certificates. Many people find it difficult to establish proof of age and residency when a birth certificate has not been filed. There has been two instances in this last year where lives were saved by the fact that individuals who were condemned to die were able to prove by birth certificates that they were under age. Some of the reasons why births should be registered are:

To prove the fact of birth:

- For proving parentage.
- For inheritance of property.
- For settlement of insurance.
- For legal dependency.

- For establishing identity.
- For tracing ancestry.
- For child health programs.

To prove date of birth:

- For entrance to school.
- For first work permit.
- For automobile license.
- For right to vote.
- For right to marry.
- For right to enter Civil Service.
- For entering military service.
- For social security benefits to blind, dependent children, aged.
- For settlement of pensions.

To prove place of birth:

- For passports.
- For immigration and emigration.
- For establishing citizenship.

To furnish birth statistics.

Deaths should be registered

To prove the fact of death:

- For life insurance claims.
- For settlement of estates.

To prove facts about deceased:

- For circumstances of death.
- For time and date of death.
- For age, sex, and color.
- For nativity.
- For names of husband or wife and parents.

To furnish official statistics:

- For health departments—
 - To establish causes of death.
 - To prevent disease.
 - To plan health programs.
- For life insurance—
 - To establish premium rates.
- For mortality statistics—
 - By place of death.
 - By residence.
- For estimating population.

All births and deaths should be registered because it is a State law. The Bureau of Vital Statistics urges all parents to insure registration of all new born children. If you have not received a card of notification of birth within three or four months of the birth of the child, the Bureau of Vital

Statistics will be glad to check their records to see if the birth was registered.

"Registration of birth is proof of citizenship and your interest in registration of births and deaths is proof of good citizenship."

NOISE

From American Journal of Public Health

DURING the past few decades infectious diseases have been better understood, and controlled to a considerable extent. The incidence of such diseases as tuberculosis, diphtheria, and typhoid fever has declined markedly. Drinking water has been purified. Sewage disposal is carried out in a decidedly more sanitary way than in earlier days. Streets are being kept cleaner. Dwellings, though universally not yet what they should be, are more sanitary. Coincident with these notable achievements from a public health standpoint there has crept into our lives a new public health problem—noise. This has come about largely as the result of the extensive mechanization of our daily life by such devices as the automobile and the radio.

Noise is unwanted auditory stimulation. Thus it may be seen that otherwise beautiful music may be noise. Unlike garbage or street dirt, noise has the peculiar property of radiating instantaneously in every direction from its source to annoy every one within the zone of its penetration.

Loudness is one of the most distressing attributes of noise. Its intensity may be measured in units, called decibels, by which the noise of a busy city street corner can be accurately compared with that of an automobile horn, the roar of a jungle animal, the loud speaker of a neighbor's radio, or the boisterous cocktail party in the wee hours of the morning in an otherwise

quiet suburb. Although fatalities have seldom (if ever) been reported from noise directly, the eardrums of heavy artillerymen may be burst, and it is a well-known fact that boilermakers become deaf.

Another aspect of noise that is annoying, to say the least, is the ambiguity of its direction. To puzzle about the source and the unfamiliarity of sounds that are distracting, often prevents one from devoting his attention to more important things. Intellectual workers are more affected by noise than others. Nevertheless, some experiments with industrial workers indicate that noise prevention in factories tends to increase the quality and quantity of output and the workers have quite generally voiced greater satisfaction with quieter conditions and felt lessened fatigue.

Watson has demonstrated that noise is an elemental fear-producing stimulus. It is one of two things that will frighten a baby that has lived in a protected environment and has never experienced fear. From a physiological standpoint noises tend to increase muscular tension and thus the energies of many people are insiduously dissipated without their awareness. Although unawakened by noises at night, their effect on muscle tension deprives persons of adequate recuperation during sleep hours and unfits them for the ordeals of another day. The persistent accumulation of such effects may be tolerated

by some people better than by others, but it is safe to say that millions are stimulated and harassed when they should rest properly to promote well-being.

There is little doubt that the people of the United States are among the noisiest. Much of it is unnecessary.

New York City has done much recently to lessen its noise. Many cities, including London, Rome, and Paris, within the last year or two have completely controlled the automobile horn by ordinance. Despite belief to the contrary, there was a reduction in automobile accidents in these cities after these ordinances went into effect—a fine demonstration that drivers could use their heads instead of their horns.

In some cities for many years anti-noise societies have been organized to arouse the public consciousness to the importance of noise prevention. The responsibility of manufacturers and merchants in these matters is clear. Quiet automobiles, street cars, radios, home devices, will be in demand to replace the noisy ones. Individuals have a great responsibility. The time should not be far distant when it may be as much a breach of good manners and public health to emit an unnecessary

noise as it is to expectorate on the sidewalk. When the public gets sufficiently conscious of the need for preventing unnecessary noise, ordinances may not only be passed, but enforced, to protect every one. Hospital zones are now protected by law. If such measures are good for the ill, they will undoubtedly help to keep many not acutely ill from being uneasy or diseased. With noise on the increase, cities must be planned in the future to protect their citizens. The proper construction of dwellings, the arrangement of streets and parks, with sound-absorbing trees, shrubs, and vines, and quiet, efficient, transportation systems leading to decentralization of overpopulated regions, hold possibilities as yet but little realized.

This problem, so essential to co-operative living, should be a challenge to education. Children should be taught noise prevention as well as cube root. There was a time when we were ignorant of and indifferent to the consequences of polluted water supplies. That is now interesting history. There will be a time when society will look back and say, "How could they exist with such a jumble of barbaric noises to harass the equanimity of man."

An Anonymous Letter On A Subject Too Long Treated Anonymously

"WE have been very much interested in many things published in the HEALTH BULLETIN, one of them is in relation to acquainting the public to the great danger in the spreading of venereal diseases. Preach it MORE, LOUDER, and PLAINER, for it is no exaggeration to say that there are great numbers of people all over the country that don't know what the name "venereal diseases" means, people who are supposed to be good citizens, decent, etc. It never

occurs to them to instruct their children, who are in school, and otherwise in public places, to be careful of toilets, and other means of contagion. If one should tell the parents there is danger of this kind they would laugh you to scorn, and say "There is only one way to catch a "bad disease", as they call it, and that is by sexual contact. No one ever has it except they are 'crooked'. If one of their family contract it, they try to keep it a secret, and 'doctor' it themselves. In the mean-

time, all the family wash in the same basin, use the same towel, drink out of the same dipper. They don't know the first word in sanitation. If you tell them they should be careful, to use every precaution, they take it as a grand insult. All this time they are mingling with people of the community, often going to spend the night somewhere. No wonder this disease is spreading. Next to the 'love of money', 'Ignorance is the root of evil,' truly.

"As long as people *boast* that they do not read, and as long as they scorn advice from any one, you people up there in the Health Department have a hard and thankless task. The bright ray is that all the rural people are not this kind. But our children are all thrown together at school.

"Keep up the good work and may it be crowned with more success day by day. Good luck to you.—*A Mother.*"

2,200 Wayne Adults Have Or Will Have Syphilis

A TOTAL of approximately 2,200 Wayne County adults have or will have syphilis.

Dr. Thomas Parran, Surgeon General of the United States Public Health Service, says:

"One adult out of every ten has or will have syphilis."

Wayne County's population is approximately 55,000, according to best available information. Of this number approximately 22,000 are adults, careful checks indicate.

It is reasonable to judge that the infection rate for Wayne is as high as the national average and probably higher, according to an opinion expressed by Dr. S. B. McPheeters, director of the Wayne County Health Department.

The Wayne infection rate is probably greater than the national average because of the larger per cent of colored people in the County as compared with the nation as a whole. Checks show syphilis is six times more prevalent among colored people than among white persons.

The startling facts for Wayne County—equally true for every section of the nation—were pointed to as word from Washington came of plans for an intensive nation-wide attack on syphilis—public health enemy number 1—to be launched in the near future through a net work of federal and state health authorities, public and private institutions and practicing physicians.

Details of the plan for the nationwide fight to curb the disease were given in an article by Dr. Parran, written for the Associated Press.

The first requisite for the attack is, however, an appreciation and understanding of the problem by the public. For centuries people have considered that it was immoral to even speak of the disease but in the future it must be recognized as a health hazard and probably least of all as a question of morals.

From now on syphilis must not only be talked about but be fought actively because it is arising as the great American disease and if all conditions due to syphilis were reported as such, it would probably be found the leading cause of death in the United States today. Such a situation can not be allowed to be obscured any longer by the fog of ignorance.

We can be justly proud of our record in the United States in fighting tuberculosis and reducing its occurrence to the point where we can talk about eradicating it entirely. It is shameful, however, that so pitifully little has been done in fighting syphilis, cases of which are more numerous than measles, twice as numerous as tuberculosis and a hundred times more numerous than infantile paralysis, to which so much public attention has been directed in recent years.

There is an even greater opportunity for the eradication of syphilis against which we have made no progress than

for the eradication of tuberculosis. The fact that the end results of the disease crowd our jails, our poor houses, and our insane asylums is not due to a lack of scientific knowledge, because we have at hand specific methods of controlling it which are better authenticated by science than the means of controlling tuberculosis.

Then, since the methods of treatment and eradication are known the steps to be taken are these:

1. Finding cases of syphilis promptly through widespread use of the Wassermann test and treating them immediately.

2. Examination of all persons having contact with a patient found to have the disease.

3. Preventing the birth of syphilitic children by requiring blood tests before marriage and early in each pregnancy.

4. Teaching the facts about syphilis to all people.

We know in general where syphilis is—half of the cases are found in persons between 20 and 30 years of age with six men having it for every four women infected. It is four times as prevalent in cities as in rural areas and six times as prevalent among negroes as among white persons.—*Goldsboro News-Argus*.

The Challenge

THIS afternoon's meeting of service club heads and others interested in the problem of venereal disease control in Wilmington and New Hanover County, is of vital importance to the entire community.

There is no mistaking the gravity of the problem. It is the most serious confronting health officials today. It is aggravated by several reasons. Among them is the over-modesty of the public; the reticence of those afflicted, and utter failure to observe the law.

These diseases can be curbed by education and law observance. That has been demonstrated by Sweden.

Sweden, a teeming kingdom on the Scandinavian peninsula once had one of the highest venereal rates in the world. The government grew interested and began a series of educational ventures plus a law that required compulsory treatment.

Last year, Sweden had less new cases reported than New Hanover County, and New Hanover's reported total was by no means a genuine index.

North Carolina does not enforce the law regarding venereal diseases.

The statutes require that every case treated be reported to health authorities, not by name but merely as a new case.

This is not done.

North Carolina law specifies that every handler of food, whether employed by public caterers or in private families submit to tests for venereal diseases.

Only those in public service comply with this law.

North Carolina law says that any person suffering from a venereal disease, and who fails to take treatment from either the public clinics or a private physician shall have his home placarded as a warning to the public.

This law is absolutely ignored.

Charlotte once tried it, but the red signs soon disappeared. Why?

False modesty that preferred the sacrifice of human lives and human welfare to satisfy a smug and hypocritical convention.

Can the innocent and the virtuous have a venereal disease and not know it?

They can. Let us recite the case of four doctors. They were men educated to the nth degree. With seven companions, fellow practitioners of the ancient art of healing, they submitted to tests.

Four of them showed positive.

Bear in mind these were gentlemen, not only versed in medicine, but whose moral lives were above reproach.

Of the four, one survives with his usual health.

One is dead. A cerebral hemorrhage due to venereal disease took his life.

Another is retired from practice, because a heart weakened by venereal disease prevents his active engagement in his profession.

A third is in an institution for the hopelessly insane.

If a disease so insidious as to waylay practitioners of the healing profession without their knowledge, what can it do for the mere layman, unversed in the science of medicine?

The situation in Wilmington and New Hanover is no worse than in other sections of the State, and of the country, but—

Venereal diseases lead every communicable disease, including typhoid, smallpox, diphtheria and scarlet fever.

Venereal diseases cause indirectly (they seldom kill of themselves, but confine the victim to a lingering death) more deaths than cancer, most dreaded scourge of the age.

Smallpox was stamped out by education.

So was typhoid, and we overlooked our conscientious scruples in so doing

because typhoid is born of the vilest filth.

Scarlet fever was eradicated by the same procedure.

Shall venereal diseases endure, merely because we have a mistaken idea that it is a term not used in polite society; that it is spawned of immorality?

Let us remember that seventy-five per cent of those who suffer are innocent of the slightest immorality.

The challenge should be answered. The time is now, today.—*Wilmington Star*.

A Health Menace That Is Multiplying

IN polite and refined circles certain diseases classified non-technically as "social diseases" are taboo and as a consequence certain of these infectious maladies are growing by leaps and bounds.

The surgeon-general of the United States is authority for the statement that syphilis now outranks all other menaces to the health of the race. Statistics given out by the surgeon-general indicate that there are more than a half million new cases from this insidious and destructive disease in this country every year. By way of comparison, there are about 150,000 cases of scarlet fever, 125,000 cases of tuberculosis, and 50,000 cases of diphtheria.

The surgeon-general points out that the next great crusade of health and medical men in this country must be against this dread disease. No longer must it be considered a product of organized and commercial vice. More than 50 per cent of the victims, says the surgeon-general, are innocent of any immoral conduct. The germ, which does not live out of the human body, except for a very brief time, is easily transmitted—even by a handshake or a kiss is it spread. Nursemaids and cooks are a prolific source of contagion. One instance is cited by the surgeon-general where seventeen active cases in a group of young people were traced to one infected carrier at a party where a "kissing game" was in progress.

The Free Press has been of the opinion for many years that there was entirely too much secrecy and false mod-

esty in the handling of this problem. The doctors themselves are largely to blame, for they have unquestionably refrained from endangering the happiness of married couples by not diagnosing troubles of various and multifiduous kinds that have originated in this infection.

Discussion is frequently heard of the advisability of requiring domestic servants, conceded to be a source of infection, to be examined and to present a health certificate. Handlers of foods are required to pass such examination in places of public sale and public eating houses—why not require the private domestic servant to undergo such examination? The saving of one baby from infection from a diseased nursemaid would justify a rigid law and provision for proper examination and certification.

In this connection, of course, it can be argued that employers of domestic servants can act on their own initiative and require such certificate. The trouble is they do not do so, and only a comparatively small percentage can be counted on to take the precaution unless supported by a general public law.

The State Health Department of North Carolina would do well to sponsor a state-wide law—one with no loopholes and with teeth in it.

Why not tear the mask from this monster?—*Kinston Free Press*.

We are much encouraged over the fine response to our efforts to establish some maternal and child health centers. To date some sixty have been organized—about all that can be financed this year.

DO WE BELIEVE IN THE LAW?

DR. HIATT last night warned members of the Brigade Senior fraternity of the dangers of venereal diseases. He cited figures that should be arresting to any normal mind.

North Carolina law is very definite on the subject of venereal diseases. If the statutes were enforced, the maladies would be eliminated, but the wholesale disregard for these laws is more flagrant than the contempt in which the late prohibition law was held.

It is unlawful in North Carolina for a person suffering from a venereal disease to expose another to infection in any manner or form whatever.

A fine or imprisonment or both are provided for the offender.

It is unlawful for a physician to treat a venereal case and not report it to the health authorities. It is similarly unlawful for the manager or superintendent of any institution where a venereal patient is treated to fail to make a similar report. It is unlawful for any person who makes a diagnosis of a venereal disease whether physician or otherwise, to keep it secret.

Health authorities of North Carolina, may at their discretion examine against their will persons reasonably suspected of having a venereal disease, and to detain in custody such suspects, until the result of such examinations are known.

The law of North Carolina says also that persons refusing to take treatment, when their disease is known, if venereal, may be subject to quarantine (or imprisonment).

The law of North Carolina says further that domestic servants must be examined periodically, if their duties include the handling of foodstuffs, or otherwise cause the hazards of transmission.

In brief North Carolina law will protect the public if the law is enforced.

North Carolina law however is not enforced. It is treated with contempt.

And in the meantime, venereal diseases have taken rank as the greatest menace to health in the world today and are gaining steadily.

Do we believe in the law?—*Wilmington News*.

SHOULD BE NO LET UP

It is gratifying to learn that the Federal Government has released over \$94,000 in funds ear-marked for child welfare, maternal and child health services, to North Carolina during the past few months.

No service being performed by local, State and Federal Government units, save that of maintaining law and order, is more important than that which pertains to the welfare of the mother and child.

The appalling tragedy that is written into needless infant and mother deaths in maternity, and the life handicaps thrust upon children through the lack of proper pre-natal and post-natal care are vital concerns of the public, and government as the legal representative of the public will, acts wisely and well when it moves to remedy the conditions that cause these evils.

Community, State and Nation should stay behind this mother and child health and welfare program. On this front there should be no let up.—*Winston-Salem Journal*.

PREVENTIVE MEDICINE DREAMS

"Preventive medicine dreams of a time when there shall be no unnecessary suffering and no premature deaths; when the welfare of the people shall be our highest concern; when humanity and mercy shall replace greed and selfishness; and it dreams that all these things will be accomplished through the wisdom of man.—By Dr. M. P. Rosenau, Head of the New Department of Preventive Medicine at University of North Carolina.

TAKE A TIP FROM YOUR DOG

Speed! Speed! Speed! Speed is the spirit of today! We must all learn to relax. Have you ever noticed your dog? After he is through running and playing, have you noticed how he completely relaxes and falls asleep on the rug at your feet? He lets down, rests every nerve and muscle, and builds up his strength for the next run.

You, too, need to relax. Take a tip from your dog and let down. In these high-tension days it is vitally important to relax.—*Ohio Health Bulletin*.



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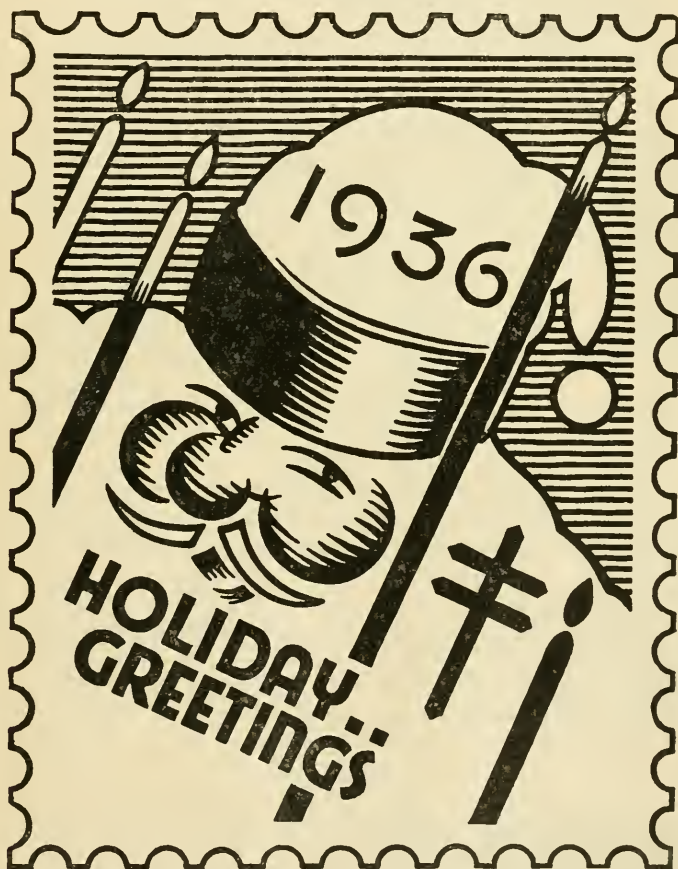
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CHRISTMAS SEALS FIGHT
TUBERCULOSIS

PLEASE BUY AND USE THEM

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FREE HEALTH LITERATURE

The State Board of Health publishes monthly THE HEALTH BULLETIN, which will be sent free to any citizen requesting it. The Board also has available for distribution without charge special literature on the following subjects. Ask for any in which you may be interested.

Adenoids and Tonsils	German Measles	Scarlet Fever
Cancer	Health Education	Smallpox
Constipation	Hookworm Disease	Teeth
Chickenpox	Infantile Paralysis	Tuberculosis
Diabetes	Influenza	Tuberculosis Placards
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Don't Spit Placards	Measles	Typhoid Placards
Eyes	Pellagra	Veneral Diseases
Flies	Residential Sewage	Water Supplies
Fly Placards	Disposal Plants	Whooping Cough
	Sanitary Privies	

SPECIAL LITERATURE ON MATERNITY AND INFANCY

The following special literature on the subjects listed below will be sent free to any citizen of the State on request to the State Board of Health, Raleigh, N. C.

Prenatal Care (by Mrs. Max West)	Baby's Daily Time Cards: Under 5 months;
Prenatal Letters (series of nine monthly letters)	5 to 6 months; 7, 8, and 9 months; 10, 11, and 12 months; 1 year to 19 months; 19 months to 2 years.
Minimum Standards of Prenatal Care	Diet List: 9 to 12 months; 12 to 15 months; 15 to 24 months; 2 to 3 years; 3 to 6 years.
Breast Feeding	Instructions for North Carolina Midwives
Infant Care. The Prevention of Infantile Diarrhea	
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THE Health Bulletin



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Notes and Comment

By THE EDITOR

ACCORDING to our custom for many years, we are again publishing in the November issue of THE HEALTH BULLETIN on the outside back cover a list of the deaths from tuberculosis of the respiratory system, by county and race, for 1935. If the reader is interested, as every citizen of this State should be, it will be interesting to compare this column this year with those which have been published annually for the past several years.

In 1915, there was a total number of deaths from all forms of tuberculosis that year of 3,710. Compare that with the figures in this issue. It will be noted that in 1935, just twenty years later, there was a total of 1,938, just slightly more than half the total number of deaths which occurred twenty years earlier. In this year, however, the population of North Carolina had increased considerably more than one million over the total population in 1915. Had the same rate prevailed last year that obtained in 1915 with the increase in population, there would have been between five and six thousand deaths.

Tuberculosis is not eliminated. It has not been eradicated from this State. It is still a public health problem of large proportions, but in no other disease, with the exception of typhoid fever, have the forces of pre-

ventive medicine made such headway as has been made in the efforts to control and eliminate tuberculosis. When the new State Sanatorium at Black Mountain is completed to its full capacity, and with the addition of a few county sanatoria now underway or contemplated, it should be much easier than ever before to reduce the principal cause of the spread of this disease, that is, the infection by contact with healthy people, principally children, of patients seriously ill with tuberculosis.

Our front cover again this year was supplied by Dr. L. B. McBrayer, Managing Director of the North Carolina Tuberculosis Association. It is a picture of the 1936 tuberculosis seals, the emblem of the National Tuberculosis Association. The sale of these seals which are later affixed to Christmas letters during the past few years has reached large proportions. Seventy-five per cent of the proceeds of the seals are retained in the community selling them. It is always spent for a worthy cause in an effort to prevent further spread of tuberculosis through educational efforts and through care to susceptible children, and in many other ways. For example, the past summer, a large group of children from Raleigh and Wake County, all of whom had shown susceptibility to the infection, were sent to the State Sanatorium in the children's department for a stay

of several weeks. This was of great benefit to these children, and this aid could not have been provided in any other way.

Our purpose in publishing the emblem in our November issue is to have

it distributed a full month before statewide efforts are launched for their sale. This serves to call attention to the various groups interested in promoting this work in time to organize their forces for a successful effort.

On the Prevention and Modern Treatment of Tuberculosis*

By C. H. Cocke, M.D., F.A.C.P., Asheville, N. C.

ONE of the most hopeful and outstanding phenomena of the modern efforts at disease control is the rapidly decreasing death rate from tuberculosis of the lungs. Twenty-five years ago approximately 186 people out of every 100,000 population in the United States died of this disease every year. During 1936 this figure will be cut approximately to a third, with some states showing less than sixty deaths for every 100,000, while the general average will hardly be more than 70.

While it would be comforting to think that this great improvement was due entirely to the sanitary, hygienic, and other preventive measures which have been used during this period of time, still a review of the facts as known shows that the reason for this decline is due to other factors in addition to these great efforts. One of the peculiar features of this disease is that one cannot predicate with any certainty the effect which the germ will have upon any given host. In other words, the question of the activity and virulence of the disease—and as a corollary its communicability—are not subject to completely known laws. The reason for this statement is that while as I stated earlier, all tuberculosis workers are encouraged over the results of the campaigns to lessen and eradicate the dis-

ease in this country and the wonderful reduction in the death rate as a result thereof, still a fairly similar reduction in the death rate from this disease has been found in other countries where no such concentrated efforts as ours have been put forth. Just what these factors are which seem to be universally applicable is not at all known definitely. But whatever is responsible for the encouraging decrease in tuberculosis mortality, our conception today of the best possible method of preventing the spread of this disease is by as early recognition as possible of the individual case, and then institution of the proper measures to prevent its spread by contact with others. This means the proper care of the open case, (the one with germs in the sputum), in a sanatorium, with careful studies of all members of the family and immediate associates of the patient. This proper study would include, certainly in children, the use of the intracutaneous tuberculin test and the X-ray film in all instances. The increasing numbers of available sanatoria, city, county, state, and federal, has undoubtedly been one of the prime factors in bringing about the encouraging reduction in the death rate mentioned earlier. This increased number of beds offers still further hope of continuing this satisfactory state of af-

* Being an abridgement of an address delivered August 20, 1936, at the Postgraduate Assembly, Banner Elk, N. C., held under the auspices of the North Carolina State Medical Society.

fairs. The ideal, of course, is to have available in any given community or State a sufficient number of beds to take care of all open cases. A good many communities predicate the number of beds necessary upon the theory that two beds are needed for each death during the year from tuberculosis. An even larger number of beds available might well be the goal.

With regard to the proper control of the individual given case, this paper has no concern. It is by no means to be inferred, however, that this is not enormously important in the aggregate as well as for the individual as for his community. Where isolation of such cases—or better still accommodation in a sanatorium—is not feasible, the utmost care and zeal must be used in instructing the entire household for their own protection. The absolute necessity for this is apparent if the ultimate goal of eradicating the disease is to be reached, for naturally every case is the result of contact with another one, whether previously recognized or not.

Other factors contributing largely to the decline in the death rate are the vast improvement in the economic status of the American public, with better food, better clothing, better housing and protection from the ills of weather, better early care of children's disabilities, markedly improved milk supplies, and a wide dissemination of standards of health and habits of living that have resulted from all kinds of health programs. The teaching of hygiene in the schools must have been a valuable factor. The wide popularization of knowledge of medical subjects has been of value; but perhaps of even greater importance than all of these has been the development of our modern ideas of the proper treatment of the disease.

The first sanatorium for the treatment of tuberculosis was founded by Brehmer at Gorbardsdorf in Silesia. He

thought that exercise was the prime valuable agent in helping cure the disease. His most famous pupil, Dettweiler, realizing from his own condition the harmful effects of fatigue, modified this open air treatment by means of "rest halls", where the patients rested in the open. Neither of these men actually appreciated the fundamental principle largely responsible for their results upon which modern treatment is based, namely rest, though they achieved results superior to those obtained before.

Then soon followed the first of the modern eras of treatment in which patients sought climates which were supposed to have beneficial effects upon the disease. The fallacy of this belief that *climate alone* will cure the disease has led many to conclude that climate is of no value. While undoubtedly it is more important for the patient to have the proper care than perhaps the best climate, still for those able to obtain it, taking the cure period in a favorable climate does offer definite advantages over attempting the cure at home. As summed up by the late great Dr. Osler, "Care without climate is better than climate without care."

Following the announcement by Dr. Koch some nine years after his discovery of the tubercle bacillus that he had discovered tuberculin, (which we now use as a means of testing for the presence of tuberculous infection), it was thought that the long sought cure for tuberculosis had been found. Though tuberculin has been made in hundreds of different kinds and ways, and there have been all sorts of biological products and chemical agents sought and believed to be helpful in specifically curing the disease, up to the present moment none has unequivocally proven its worth.

The really successful treatment of tuberculosis began with the development of sanatoria and an appreciation

upon the doctor's part that rest, and that preferably in bed at the beginning, was the prime essential in the cure. That mere residence in an institution and twenty to twenty-four hours in bed do not constitute the sum total of sanatorium treatment is a truism, though likewise the sanatorium is infinitely the safer and better place for a patient to acquire the details which are necessary for his cure. However, after several years of success in this manner of treatment, aided by careful nursing, good nourishing diet in a wholesome climate, it was found that a certain number of cases still needed additional help. Then, within the last quarter of a century, we entered our present compression or collapse era of treatment, which today is offering the best results yet obtained in the treatment of the disease.

Compression treatment attempts to put the diseased lung at rest so that its constant functioning eighteen or thirty times a minute, in addition to the effort of coughing, may be still, and the lesion allowed to heal. It had its great impetus in the work of Forlanini, who first successfully did artificial pneumothorax. Since certain cavities could not be closed by this method owing to adhesions holding them to the chest wall, attempts were made and a technique has been evolved of severing these. To Jacobaeus goes the most credit for first popularizing this method, though Unverricht and the Matson brothers of Portland, Oregon, in this country did pioneer and valuable work following his lead. Within the past fifteen years, either crushing or severing or extirpation of the phrenic nerve, which controls diaphragmatic motion, has received wide acclaim and in some places quite extensive use. This is not the place to discuss its applicability, indications for it, and contra-indications, as well as the results, though dependence upon it

to the exclusion of other methods of treatment will bring great disappointment.

Other less commonly used methods of compression, such as apicolysis, paraffin packs, scaleniotomies, intercostal neurectomies, and various combinations of all of these are used by men skilled in compression therapy. Lately, the operation known as thorocoplasty, or removal of certain portions of the ribs, allowing the chest wall to shrink and compress the lung, has become in the hands of skillful, well trained thoracic surgeons, a most valuable adjunct to our present means of attacking advanced tuberculosis. This I feel should not be used until pneumothorax or some of the less serious procedures have been tried and proven wanting. Of all the measures mentioned, pneumothorax stands out in my opinion as the one most brilliant, single advance in the treatment of tuberculosis within the past twenty-five years.

Certainly some things have been learned well in the last few years about the surgical treatment of tuberculosis; and of these, three seem to me fundamental: First, there must be the fullest cooperation between the competent internist caring for the case and the equally competent thoracic surgeon, who have decided that surgery is indicated in the given case; another factor is that having once decided that surgery is indicated, it is most important to determine as carefully as is possible what form and how much surgery should be done in any given case; 3rd and last, but by no means least, the choice of the optimum time for the operative procedure; and then, again, by way of emphasis, the patient should be very carefully warned that surgery is not a substitute for the cure, but only a means to an end, and it by no means absolves the patient from the necessity of proper care of himself after the surgery is done.

A Few Tuberculosis Aphorisms

By C. H. Cocke, M.D.

A few years ago Dr. Lawrason Brown enunciated certain valuable theses on the subject of tuberculosis, which crystallized his thought at the moment on various matters of interest in the disease. By way of supplement to such, I would like to add aphorisms of my own:

Tuberculosis is acquired usually by intimate, prolonged contact, rarely by chance, massive infection.

Every open case of tuberculosis is a potential source of danger to his household, his associates, and his community.

Proper control of such a patient makes him no menace whatever to anyone. In the proper disposal of all tuberculous excreta and above all of his sputum lies the only safety.

The essence of the cure is freedom from stress, strain, and fatigue of mind, body, and soul.

The most essential element is Time, for this there is no substitute.

Tuberculosis itself is not often successfully treated; *patients* with tuber-

culosis are treated successfully by the thousand.

What the patient does is more important than *where* he does it.

In tuberculosis there is no greater fallacy than that the patient is as well as he feels.

What is above the eyes is as important or more so than what is below the collar bone.

Rest is the only proven specific in the cure. Compression or surgery are only aids in achieving this.

All consumption is tuberculosis, but all tuberculosis does not have to become consumption.

The time to call the fire department is when you smell smoke; the way to diagnose tuberculosis early, and hence treat it successfully, is always to think of tuberculosis.

All things else being equal, the earlier you discover tuberculosis, the more likely and certain the cure.

Never assume your patient knows the way of the cure; he must be taught it.

Eyeglass Fakers Still Active

AT frequent intervals for the past ten years, we have been publishing information about the activities of a bunch of fakers traveling over the State posing as "specialists" in eye diseases. They have robbed many old people of a good deal of money. No one knows how many, because some of the victims have been ashamed to make public their loss in fear of ridicule from their friends. Only once has an arrest been made and they forfeited a \$2,000 cash bond at Winston-Salem two or three years ago, thus slipping out of the hands of an alert officer.

We had hoped that by this time they would be safely in prison at hard labor. We find that we are too optimistic. In a recent issue of the *Reidsville Review* we find the editorial quoted below. That indicates that these light-fingered crooks are still reaping a harvest from that rather large portion of our population who always insist on trusting strangers with their health and their money in preference to their family physician. Read what the *Reidsville* editor says and if you see one of these "specialists" hold him and call the

nearest policeman and get him into jail for a court trial if possible.

The article follows:

"A CRUEL RACKET"

"Citizens of Reidsville and surrounding territory will do well to be on guard for what is reported to be the most cruel racket ever practiced in this country. It is known as the "eyeglass racket", and is being operated in various parts of the country now. A man, pretending to be an eyeglass specialist call on an elderly man or woman, usually after finding they have a small bank account, and interests them in eyeglasses at extremely low prices, but refuses to make a sale since he says the glasses he carries are only samples. But he agrees to send along another specialist to first examine the eyes. This second man, arriving a few days later, applies a white salve-like substance to

the prospect's eyes, and a little later, by the aid of tweezers extracts what he explains was 'an invisible cataract'. In truth it is but the fine skin from the inside of an egg which the dupe had concealed in his hand. Then he asks a fee, mentioned occasionally that the same operation at the Mayo Clinic costs a huge sum. He usually departs with from \$25 to \$300 of the unsuspecting victim's hard-earned money.

"It is a cruel hoax, so cruel in fact that Uncle Sam has stepped in and is assisting in rounding up the racketeers. Several have been arrested in the past few weeks, but there are others still working the 'racket' in various parts of the country. They may strike your section next. So be on your guard and report the presence of such a scoundrel the moment his operations reach your attention."

Reporting of Tuberculosis Cases

By J. C. Knox, M.D., State Epidemiologist

ON September 1, 1934, tuberculosis was made reportable to the State Board of Health. The procedure in reporting is the same as that used in the reporting of other communicable diseases; that is, the report of the physician goes to the local health or quarantine officer who in turn reports to the State Board of Health. The card is a specially designed one which should be mailed in a penalty privilege envelope insuring the privacy that most physicians and patients desire.

The State Board of Health is attempting to put the records into usable shape by an index system that will facilitate finding the names of patients that have been previously reported. It is also desired to secure enough information relative to the home address of the patient so that any

community treating a large number of tuberculosis patients will not be penalized by having these cases charged against that community when they should be credited to some other community or state.

This, of course, increases the work of this office, but it is felt that it is essential to have this information. The prompt reporting by giving home and present address with age of patient will facilitate our finding duplicate report cards when they exist.

In reporting cases of tuberculosis, if the patient happens to be a married woman and it is known or suspected that her case has been reported at some previous date, it will be appreciated if the maiden name of the individual is put on the report card as well as her married name.

Club Women's Part In Preventing Tuberculosis

By MRS. J. H. HIGHSMITH

BEHIND the headlines that have announced from time to time that the tuberculosis death rate of the State is declining is a beautiful story of cooperation. I refer to the part that North Carolina club women have played for about thirty years and are still playing in the fight to bring tuberculosis under control. Particularly, I have in mind their faithfulness in organizing Tuberculosis Christmas Seal campaigns each year and letting not even the festive holiday spirit interfere with this important mission; also, their care of the tubercular needy in their community; their operation of fresh air camps and preventoria for children predisposed to tuberculosis; and their manifold efforts to feed the under-nourished school child that he may not fall a victim to this disease.

To the unfailing interest and cooperation of club women has been credited a fair portion of the success achieved not only in North Carolina but throughout the country in reducing the tuberculosis death rate. But tuberculosis is not yet a conquered disease. The best part of the fight is that to be made from now on—the part that will enable men, women and children to resist this disease or to cope with it intelligently wherever it does exist. Preventive work of this kind is the most constructive phase of the tuberculosis control program and is therefore the most valuable. It is the field of work in which club women have been most successful in the past and in which they can continue to work with effective results. They should plan now to sponsor the 1936 Tuberculosis Seal Sale and through it raise funds for such undertakings as constructing preventoria, operating summer camps,

maintaining nursery schools, supervising nutritional groups, and supplying milk to hungry children.

Plans are being made by the North Carolina Tuberculosis Association and the State Board of Health to make the Thirtieth Christmas Seal Sale the largest the State has ever known. There was a seven per cent gain in the country's 1935 Seal Sale over that of 1934, and an even greater increase is anticipated for this year. Around seventy-five of the largest women's clubs in the State serve each year as agents for selling Tuberculosis Christmas Seals in their communities. What they have accomplished in past years with the funds obtained from the sale of seals is a thrilling page in the history of North Carolina health work. County sanatoria have been built; fresh air and nutritional camps have been maintained for many summers. Under-nourished children have been fed and needy tubercular cases have been given hospital treatment, all financed through the sale of the Christmas seals.

The lean years have passed, and in departing have left in every community depressed and dependent families—homes in which children become easy prey to tuberculosis. The protection of such families from the ravages of this devastating disease is the opportunity that faces every woman's club in the State today.

Twenty-six people died from pellagra in North Carolina in September. This was four more than the number who succumbed in 1935. If this disease is to be completely controlled in our State intelligent efforts will have to be made 365 days of the year.

Backache*

By D. W. Holt, M.D., Greensboro, N. C.

WHILE a student in medical college and later a resident physician, under the teaching and leadership of the noted physician, author and loved teacher, the late Dr. Thomas McCrae, I was particularly impressed with the way he emphasized the subject of my paper today; namely, "Backache." Well do I remember how he tried to impress upon us the importance of a careful and painstaking history and examination in these cases.

The study of backache affords a most interesting problem in medicine. It is now definitely known that backache may arise from any number of conditions which may be coexistent in the same individual. Therefore, in an analysis from an etiologic standpoint, it is necessary to proceed with the utmost caution. It has taken a long time for medicine to arrive at this conclusion, and there have been many steps in the development of the opinion. When gynecology developed as a specialty, it was believed that pelvic conditions were the chief cause of backache. The view changed when it became known that relief did not often follow the procedures directed toward the lesions, and that men were also liable to backache. At that time, probably little was known as to the cause of lumbago or sciatica or of the role the prostate gland plays in causing backache. When the pendulum swung to the other side, the gynecologists became more conservative in their statements about backache. Dr. Kelly, in the 90's, constantly cautioned his students not to promise relief from backache in the presence of inflammatory conditions, or in marked retroversions; and Dr. P. Brook Bland, in Philadelphia, also tried to impress upon us,

that simple uncomplicated retroversion was not a cause of backache, and in stressing this point he said "Any physician who tells a woman that an operation for simple retroversion would relieve her backache, certainly does not know the nerve supply of a woman's pelvis."

With the advent of the knowledge of focal infections, many other causes for backache have been recognized. Many men of outstanding authority have stressed the importance of teeth, tonsils, sinuses of the head, the appendix, gall bladder, prostate, seminal vesicles, and the female pelvic organs as chief sites of focal infections. The bacteriologic work of Rosenow and Dick has given this theory a reasonable amount of corroboration, and the fact has been established that backache may well represent some evidence of infection, with or without disturbance of posture.

There are certain fundamental conditions that attend any investigation of backache. We realize the fact that bad posture is most common in women. Women do not usually stand as well as men. They have a high proportion of flat feet due to improper style of shoes.

The importance of fatigue is not sufficiently emphasized. Fatigue alone may be responsible for backache. Because nearly all gynecological patients complain of backache, it seems reasonable to assume that fatigue must be shared with static as well as with the pelvic conditions.

Infection of the bladder usually causes a definite backache. Backache has occurred in patients whose tubes have been removed or tied off, and this may be due sometimes to ovarian adhesions or other pelvic pathology. How-

* Being a modification of a paper read August 20, 1936, at the Postgraduate Assembly, Banner Elk, held under the auspices of the North Carolina Medical Society.

ever, we must remember that backache can be caused by many other inflammatory pelvic conditions.

Consider some of these variations from the normal: firstly, retrodisplacement. To the lay mind, a "tipped womb" always means a backache, but there are a large number of backward displacements without any symptoms whatever. It becomes necessary to explain why backache is present in only certain cases of retrodisplacement. Something beyond the theory has been advanced that circulatory disturbances in the broad ligaments, or in the uterus, accompany the abnormal position, and that it is this circulatory disturbance that causes the backache. However, backache is not always present in pelvic inflammations, where circulatory disturbance is marked. Secondly, pressure: the adherent retroversion with pathology in the appendages might seem to be one abnormality which would most likely produce this pressure. One must remember, that the uterus or womb can "come outside" without the slightest complaint of pain by the patient. One surgeon states that in backache cases, an accompanying retrodisplacement was disclosed in only eleven per cent of the total number.

With the realization, then, that backache may be present in one patient with certain pelvic abnormalities, and absent in another with more or less identical pathology or identical lesions, we see that the part the pelvic organs play in the production of this symptom is uncertain. Many of these backache cases are of long duration, measuring over months and years. In the greater number of cases, the symptom is worse after exertion, especially towards night, with relief after lying down. A much smaller but very definite group has backache when first getting up in the morning. Another small group has backache only when in bed, and there is a group which embraces patients who are uncomfortable when sitting

any length of time. One is struck by the frequency with which these women patients date their disability back to child-birth.

Patients who describe a backache after exertion also complain of discomfort in the lower abdomen, sometimes sharp and fleeting, sometime dull and persistent. These pains have usually been present for a long time and they usually disappear when the patient lies down. "Gas" is a common accompanying complaint. They have rarely been confined to bed with abdominal pain or backache. They have "hollow backs" and there is usually definite relaxation of the abdominal walls; they often are "round-shouldered", apt to be under-nourished, and they generally convey the impression that the business of living is almost beyond their capability. On the other hand, the patients whose backaches are worse only at night present an entirely different picture. They are apt to be over-weight, short and thick, they have no lumbar curves (normally the lumbar spine is convex anteriorly), and they have a flat, square back with markedly restricted motions in all directions, a restriction obviously due to the "build." The largest group has no hesitancy in saying that in bed it has complete relief from this symptom. Certain motions such as bending, lifting, sweeping, and other household duties aggravate the pain.

We also note that a great majority of these backache cases in women do housework, not perhaps in itself conclusive, for the majority of women still do housework. We share the common knowledge also that factory efficiency has not yet been introduced into the kitchen, where one hears nothing of "fatigue" and "faulty position", of "muscle strain" or "wasted motion", though we have seen the faint beginnings of attention to this in the "yard-high sink" advertisements.

The gross defects in the structure of the back, the backs with definite lesions, do not often appear in this group. They have long since come under the care of the orthopedists. The gynecologist rarely sees an acute back, but he finds cases with chronic back pain, dated from some accident or injury supposedly causing uterine displacement (displacement of the womb). In a general way also, these patients with only slight deviation from normal, posturally, have a maximum of discomfort and minimum lesion.

The physician also sees patients who can be said to have real back strain, sometimes associated with sciatica. The terms sacro-iliac strain or dislocation and lumbo-sacral strain are in most common use. The usual complaint is "pain in the lower part of my back." Men are usually affected, and trauma or lifting is the usual history. In a large number of these cases, no lesion is demonstrable, the X-rays are negative, and no evident joint lesion can be found. An over-taut ilio-tibial band (a band of fascia on the outer side of the thigh) has been blamed by some. Support of the bony pelvis by strapping, or a corset or belt is the best mode of treatment.

If the adult patient could only be taught to walk and stand correctly, if by regulated exercises their muscle tone could be brought to normal, if with a gesture the improper and fatiguing apparatus of housework and other kinds of work could be removed, if the height of all patients could be standardized, as well as sinks and tables, a cure for this housewife backache would doubtless ensue. This ideal, of course, is impossible of attainment. Even were it a question of learning correct posture by systematic exercising, it would be impractical. The majority of these patients do not have the time nor the patience to devote to a

long drawn out course of treatment. It becomes necessary to short-cut in a search for relief, and oftentimes a corset, in the case of a woman's backache, is more or less a permanent part of her wearing apparel. Proper corseting will take care of a very considerable number of these cases, enough to warrant it a standard first procedure for the backache which comes to us. It takes care of the whole group which has its symptoms with exertion and its relief on lying down. A reasonable proportion of these cases which have backache only in bed are relieved by a proper corset worn in the daytime; others of this group are benefited by procedures which tend to minimize the extreme flexion these rigid backs are subjected to when sleeping in beds with soft mattresses and relaxed springs. When a case seemingly belonging to the postural group does not get relief at once from proper corset or supporters, before accepting demonstrable pelvic trouble as a probable cause, we must not forget to consider the possibility of a true arthritic condition, including the sacro-iliac joints. I have found that the knee-chest position over a period of several weeks is a valuable addition to the treatment of the abdominal aspects of these cases. With the correction of the postural fault, and excluding arthritis, tumors, and inflammations of the vertebral column and spinal cord, acute and chronic, by a thorough history and examination, including X-rays and a neurological examination, one is reasonably justified to proceed on the theory that some definite pelvic pathology or pelvic lesion is its cause.

There were 441 infant deaths under one year of age reported to the State Board of Health in September. This was an increase of 62 deaths over the high mark for the same month in 1935. It is a discouraging report.

“Where Houses Thick and Sewers Annoy the Air”

Portions of an address on Health Problems of the Negro by E. F. TYSON, M.D.

IN the city of Charlotte, the chief causes of deaths among negroes are, according to frequency: heart disease, pneumonia, apoplexy, external causes (including homicides and auto casualties), cancer and tuberculosis. According to the last available statistics, the average age at death for whites was 44; colored, 36; and infant mortality per 1,000 live births was for whites, 53; for colored, 121. As for the prevalence of social disease, for every one white there were four colored, and of tuberculosis, one white and seven colored.

Now these are disquieting statistics. Grievously do we accept them and grievously do we answer them. We are ashamed of them, yet there is something we can say about them.

Our health department can be assured that the Negro medical profession stands behind it 100 per cent. We take this opportunity to congratulate every member of its personnel as well as its subsidiary group, our city, school and welfare nursing services, upon the very creditable work they have put over this year. Our health department, in particular, has worked indefatigably, has made infinite importunings and has used countless moral suasions with the powers that be but in unavailing efforts to remove the greatest cause of our public health dilemma—the city slums.

Is there great wonder about these figures of infant mortality when we stop to consider that the Negro is shunted off upon the mud-sill of society, upon the murky banks of the several streams of water which normally traverse our city but which

actually become stagnant or polluted several times within the course of a single year, constituting a health menace of gigantic proportions, increasing not only infant mortality, but the incidence of social diseases, tuberculosis, malarial and typhoid fevers? Negro mothers, domiciled in such localities, in hovels, which, for want of more repulsive names are styled “shot-gun houses”, thrown together by landlords whose initial thought is a quick return from a financial outlay—Negro mothers, I say, forced by economic stress to go out in service often within one week of their accouchement, leaving their babies, pardon the expression, to “root hog or die” in the care of irresponsible, in insanitary homes and premises, where sometimes four families are forced to use a single toilet and where the only available drinking water supply is confined to the same inclosure—leaving their babies, I repeat, in dens, unprotected from flies, mosquitoes, and vermin, to be brought up undernourished, pale, anemic, under-privileged, diseased and without a chance in life—these mothers, with tear-stained faces, with cruel furrows across their brows, their steps robbed of elasticity, and the buoyancy taken out of their lives, invariably turn to the family physician with the question: “Is it true, Doctor, that my baby died because it’s blood was bad?” The answer, of course, is an emphatic no. Social disease is but the smoke screen that hides the insanitary, squalid, loathsome abomination called the city slum.

As to social disease and tuberculosis, I shall simply offer a quotation and a quasi paraphrase from the classic

Cicero: "How long, oh Catiline, will you continue to abuse our patience?" Paraphrased: How long; how long will we allow those Catilines who live in the slum sections of our city to continue to abuse the female patients of an honorable, struggling, outraged and indignant medical profession? I say that our health department has left no stone unturned in a genuine effort to wipe out our slums—abominations, where five, six, and eight, male and female, are huddled together in a single room, living night and day in a veritable "glory-hole" of iniquity, squalor and disease, where ignorance, though it doth corrupt, is bliss, and where thieves break through and steal our pride and progress. And yet there are those who would stand by and try to decide whether they should chide or deride either the health department or the medical profession for the fact that these abominations still persist both as a blight upon the physical ap-

pearance of our city and a blot upon our public health escutcheon.

Finally, we need a hospital for tubercular Negro children. Speaking of hospitals, it would be ingratitude more strong than traitor's arms that would quite vanquish the spirit of Mrs. Jane Renwick Wilkes were we at this hour to fail to pay her a deep debt of gratitude and a lasting tribute to her memory. It was Mrs. Wilkes who, in 1881, established, single-handed, our own Good Samaritan hospital, the very first institution of its kind in the entire South, offering sanctuary to indigent Negro sick. That institution stands today as a lasting memorial to her spirit of sacrifice, magnanimity, Christianity and inter-racial good will. More than any other single instrumentality, that hospital has been the most potent influence in improving our mortality statistics, our public health record and inter-racial relationships.—*The Charlotte News*.

How To Die From Tuberculosis

By JOHN P. KOEHLER, M.D., *Commissioner of Health*

1. Don't go near a doctor, no matter how much you may cough, or how poor your appetite or how great your loss in weight may be, because an early diagnosis and treatment of tuberculosis prevents deaths.

2. If you should consult a reliable physician and be told that you have tuberculosis, continue to visit other physicians until you find one who tells you that you have only a cold or a touch of bronchitis.

3. If you know that you have tuberculosis don't go to a sanatorium too early, because early cases are always cured.

4. When your friends advise you to see a doctor, buy patent medicines instead, because by the time you have

tried them all, you will have reached the incurable stage.

5. If you should go to a sanatorium for treatment, leave as soon as you feel a little better, because by staying too long you might be permanently cured.

6. If in spite of your efforts to the contrary, you received early diagnosis and treatment for tuberculosis which kept you from dying, you still have a chance to re-open your case by paying no attention to medical advice and personal health and hygiene.

7. Don't ever believe that tuberculosis is curable if diagnosed and treated early, because if you do, you might be tempted to see a reliable doctor before your case is hopeless and in that way escape death.—*Milwaukee Health Bulletin*.

Tuberculosis Among Young People Decreasing Only Slowly

CONTRARY to general opinion, tuberculosis among young people, especially young girls, has not decreased to the same extent that it has among other age groups. During the period between fifteen and nineteen years of age, the tuberculosis rate has declined more slowly than for any other period. This finding is according to a study made by Elizabeth Cole and reported in *Hygeia*. She says:

"When this situation was brought out several years ago, many educators and health workers immediately sought to place the blame on diet faddists, too thin clothing, too much "jazz" and too little sleep. Gravely shaking their heads they lamented over the "younger generation" and their "bad ways that would lead them to no good end."

Then, in an attempt to secure a more convincing explanation for the prevalence of deaths among young women, the National Tuberculosis Association made an investigation in two large cities, Detroit and New York City, to find out about the living habits of the girls between 15 and 25 who had died from tuberculosis during a period of one year. In Detroit, 180 girls had died; in New York City, 678. Their life histories, their families and the contributing factors of their environment were studied to ascertain whether this high death rate had been due to any one of these causes. Only a few were found to have been living in crowded quarters. The majority had lived in their own homes, either with their parents or with their husbands, on close to or above the average family income: in Detroit, \$1,500 a year; in New York City, \$2,000 a year. When working they had received a normal wage and did not work long hours. Industrialization, therefore, had not been responsible. It was found, moreover,

that these girls had not gone in for dieting or inadequate clothing, nor were they the "jazz mad" type.

The conclusion of those who made the study was that the physiologic development of the young victims must be accountable. The strain during the growing, adjustment-making years seems to be greater on girls than on boys. They experience more exhausting physical changes. Many girls are so constituted that they find it difficult to adapt themselves to any sort of change, and life's complications appear onerous. The transitional period, when the girl becomes a woman, in certain cases affects the general health to such an extent that resistance to sickness is lowered.

The National Tuberculosis Association, having in mind the need of protecting the health of young people, that of young girl's especially, has taken the slogan "On Your Guard," as this year's anti-tuberculosis campaign motto, and as a special warning to parents to protect the health of their sons and daughters in passing through their early adult years.

RADIO FORUM

Beginning Wednesday, October 21, and ending Wednesday May 19, 1937, there will be a series of radio programs put on every Wednesday afternoon between 4:00 and 4:30. The talks will be over NBC - WJZ Blue Network. The subject of the talks which will be accompanied by suitable music, will be the "Growth and Development of the Child." This interesting series is put on under the joint auspices of the National Congress of Parents and Teachers, the American Academy of Pediatrics and the National Broadcasting Company. We would advise all of our readers to listen in on every one of these programs.

DEATHS FROM TUBERCULOSIS OF THE RESPIRATORY SYSTEM—BY COUNTY AND RACE: 1935

TOTAL DEATHS (TUBERCULOSIS, ALL FORMS), 1,938

COUNTY	BY PLACE OF DEATH			BY PLACE OF USUAL RESIDENCE			COUNTY	BY PLACE OF DEATH			BY PLACE OF USUAL RESIDENCE		
	Total	White	Colored	Total	White	Colored		Total	White	Colored	Total	White	Colored
Total, State	1,761	783	978	1,612	697	915	Johnston	20	7	13	21	8	13
Alamance	12	8	4	13	9	4	Jones	7	7	7	7	7	7
Alexander	3	3	1	3	3	1	Lee	4	4	4	4	4	4
Alleghany	3	2	1	3	2	1	Lenoir	27	10	17	26	8	18
Anson	16	4	12	17	4	13	Lincoln	3	3	3	3	3	3
Ashe	7	6	1	8	7	1	McDowell*	6	3	2	6	4	2
Avery	7	7	7	6	6	6	Macon	10	8	2	10	8	2
Beaufort	9	3	6	11	3	8	Madison	13	13	13	13	13	13
Bertie	23	2	21	23	2	21	Martin	14	2	12	15	3	12
Bladen	9	2	7	11	2	9	Mecklenburg	70	27	43	74	27	47
Brunswick	6	4	2	6	4	2	Mitchell	3	3	3	3	3	3
Buncombe	288	187	101	112	82	30	Montgomery	6	4	2	8	6	2
Burke	22	20	2	22	20	2	Moore	18	11	7	15	8	7
Cabarrus	14	13	1	17	13	4	Nash	21	5	16	21	5	16
Caldwell	8	7	1	8	7	1	New Hanover	28	8	20	31	8	23
Camden	3	3	3	3	3	3	Northampton	11	4	7	14	5	9
Carteret	8	7	1	7	7	1	Onslow	4	2	2	4	2	2
Caswell	7	2	5	7	2	5	Orange	4	4	4	4	4	4
Catawba	10	4	6	12	5	7	Pamlico	1	1	1	1	1	1
Chatham	7	2	5	9	4	5	Pasquotank	16	3	13	15	3	12
Cherokee	6	5	1	6	5	1	Pender	5	2	3	5	2	3
Chowan	1	1	1	2	2	2	Perquimans	4	2	2	4	2	2
Clay	16	5	11	18	5	13	Person	11	3	8	12	4	8
Cleveland	10	1	9	10	1	9	Pitt	38	8	30	44	11	33
Columbus	23	7	16	26	9	17	Polk	1	1	1	1	1	1
Craven	13	5	8	15	7	8	Randolph	13	13	13	15	14	1
Currituck	3	1	2	3	1	2	Richmond	15	6	9	16	7	9
Dare	2	2	2	2	2	2	Robeson*	22	2	14	17	2	15
Davidson	15	9	6	15	9	6	Rockingham	18	10	8	19	11	8
Davie	5	2	3	6	3	3	Rowan	22	14	8	22	14	8
Duplin	16	5	11	16	5	11	Rutherford	14	9	5	14	9	5
Durham	74	28	46	67	23	44	Sampson	12	6	6	13	6	7
Edgecombe	44	16	28	43	15	28	Scotland	17	4	13	19	4	15
Forsyth	62	15	47	68	17	51	Stanly	14	11	3	15	12	3
Franklin	13	2	11	13	2	11	Stokes	8	7	1	8	7	1
Gaston	17	6	11	17	6	11	Surry	17	12	5	18	13	5
Gates	12	4	8	12	4	8	Swain*	8	7	7	7	7	7
Graham	13	2	11	15	2	13	Transylvania	3	3	3	3	3	3
Granville	7	7	7	8	8	8	Tyrrell	4	1	3	4	1	3
Greene	6	3	3	6	3	3	Union	6	4	2	6	4	2
Guilford	64	32	32	67	34	33	Vance	7	3	4	8	4	4
Halifax	32	7	25	34	8	26	Wake	54	24	30	53	24	29
Harnett	13	5	8	15	7	8	Warren	10	1	9	11	1	10
Haywood	13	11	2	14	12	2	Washington	7	1	6	7	1	6
Henderson	6	6	6	8	7	1	Watauga	4	4	4	4	4	4
Hertford	22	1	21	22	1	21	Wayne	53	4	49	47	5	42
Hoke	39	8	31	11	3	8	Wilkes	12	8	4	11	7	4
Hyde	2	2	2	2	2	2	Wilson	29	4	25	29	4	25
Iredell	23	6	17	23	6	18	Yadkin	7	7	7	7	7	7
Jackson	7	7	7	8	8	8	Yancey	5	5	5	6	6	6

Sept. 18, 1936.

* McDowell— 1 Indian death.

* Robeson—6 Indian deaths.

* Swain— 1 Indian death.



The Health Bulletin

Published by THE NORTH CAROLINA STATE BOARD OF HEALTH

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DECEMBER, 1936

No. 12



BEFORE



AFTER

TRANSFORMATION

These before and after pictures of a child treated through one of the State Orthopedic Clinics illustrate the type of result the State Board of Health is achieving in the extension of its plan of services to the crippled child in North Carolina. Social Security funds coming through the United States Children's Bureau make possible the expanded program.

The pictures illustrate, also, the importance of early diagnosis, treatment, care and oversight of children affected with crippling conditions or conditions which lead to crippling. This child will have continuous oversight and observation through the clinics and by the field workers of the State Board of Health until the age of 21 years. The purpose of frequent observation and follow up is to conserve and protect the corrective results of treatment and to prevent any tendency toward relapse or recurrence.

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FREE HEALTH LITERATURE

The State Board of Health publishes monthly THE HEALTH BULLETIN, which will be sent free to any citizen requesting it. The Board also has available for distribution without charge special literature on the following subjects. Ask for any in which you may be interested.

Adenoids and Tonsils	German Measles	Scarlet Fever
Cancer	Health Education	Smallpox
Constipation	Hookworm Disease	Teeth
Chickenpox	Infantile Paralysis	Tuberculosis
Diabetes	Influenza	Tuberculosis Placards
Diphtheria	Malaria	Typhoid Fever
Don't Spit Placards	Measles	Typhoid Placards
Eyes	Pellagra	Veneral Diseases
Flies	Residential Sewage	Water Supplies
Fly Placards	Disposal Plants	Whooping Cough
	Sanitary Privies	

SPECIAL LITERATURE ON MATERNITY AND INFANCY

The following special literature on the subjects listed below will be sent free to any citizen of the State on request to the State Board of Health, Raleigh, N. C.

Prenatal Care (by Mrs. Max West)	Baby's Daily Time Cards: Under 5 months;
Prenatal Letters (series of nine monthly letters)	5 to 6 months; 7, 8, and 9 months; 10, 11, and 12 months; 1 year to 19 months;
Minimum Standards of Prenatal Care	19 months to 2 years.
Breast Feeding	Diet List: 9 to 12 months; 12 to 15 months; 15 to 24 months; 2 to 3 years; 3 to 6 years.
Infant Care. The Prevention of Infantile Diarrhea	Instructions for North Carolina Midwives
Table of Heights and Weights	

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THE Health Bulletin



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Vol. 51

DECEMBER, 1936

No. 12

Notes and Comment

By THE EDITOR

S EVEN years ago, we devoted our December issue almost entirely to a discussion of the problems of old age. In that issue, we made as strong editorial plea as we could for the establishment of a system of old age pensions or benefits. Since that issue a great deal of water has gone under the wheel in these United States. When we prepared the material for that issue, the stock market had just begun to waver and wobble, but the only talk of hard times heard was the high cost of living. Stocks and bonds and real estate were all going at top prices. Since that issue was published, the country has come nearer disaster than it probably ever has before, with the exception of the period of the War Between the North and the South, erroneously called the Civil War.

The Federal Government has in effect, as everyone knows, at this time a provision for State cooperation in the payment of old age benefits to people sixty-five or over, who establish the need for such benefits. For reasons not necessary to discuss here, North Carolina has not been and is not now, participating in these benefits. The employers in the State, however, are having to pay their proportionate part of the tax to support the system of old age benefits. Some people argue that the system of old age benefits is a mistake, that it will conduce to shiftless habits, encourage reckless and spend-

thrift methods of living, with the expectation that in old age, the government will provide for all necessities. The opponents of this system say it is better to trust to the old true and tried methods of encouraging thrift and savings and to depend on efforts in young and middle life to provide for the needs of old age. On the other hand, the friends of the system defend it by arguing that frequently as in the past few years unfortunate investments which cannot be foreseen are wiped away, unemployment, ill health, and other misfortunes during early and middle life and a little later very frequently wipe out one's savings too late in life to be recouped. The opponents of old age benefits also argue that dependent old people should look to their families and children particularly, when they have children, to care for them during old age. Again the defenders of the system point out that this does not always work out and claim that frequently the children are overburdened with their own families and own obligations, and that they are therefore financially unable to care for their parents in declining years as they should be cared for. There can be no doubt that a practical system of government benefit for old people in want would do a great deal to make for a feeling of security and for tranquility sorely needed by large numbers of very old people.

Just the other day, we observed an article which is not at all uncommon, although generally there is no publicity about such cases. The story coming our way was about an old woman having six children all married and living in different places in North Carolina and Virginia, all maintaining homes and families of their own. The mother is an invalid and it seems that one of her daughters and her husband has been doing more for the care of the old woman than all the rest of the family put together, even going so far as to contribute financially every month for her upkeep when living with one of the other children in Virginia. The Virginia part of the family, however, tired of the exacting demands made on them to care for the invalid mother and she was unceremoniously brought down to North Carolina and deposited on the porch of the residence of the daughter who had at least been doing more for her. This showed up the daughter and her husband in a very bad way when they insisted that the mother be taken back to another member of the family or cared for in the county home in that particular county. Imagine the heartbreak on the part of the mother and the shame on the part of at least some of the family over this state of affairs. Human nature being what it is, even in the best bred families, there are instances which probably do not go so far as this case, but in which the feeling is often just as high on the part of members of the family against other members and the suffering on the part of the victim is just as acute. Care for any aged member of the family generally devolves on the one member of the family who is most sympathetic and most responsive to the needs of the old person. The rest of the family have a way of letting the particular member of the family who will do it assume all the burden. In innumerable cases, this is done cheerfully and with-

out complaint, although it is unfair and unjust, but even in such cases, the aged victim suffers in many instances. It would, therefore, seem that the most practical plan would be a system of old age pensions as now provided for in the Federal Law. Rigidly applied to the needy ones, even though a government assessment of the able-to-work members of the family, might be better in the form of an amendment to the present law, reducing the burden on the Government, but assuring each needy, aged person proper care and attention, is the best method and one we hope may be applied in our State within a very few months.

* * *

SOME days ago, *Science News Service* sent out a story from Boston that Western Europe alone has thirty to forty million people living below the standard of nutrition. The item interested the Editor of the HEALTH BULLETIN because the nurses in the employ of the State Board of Health this fall have been reporting a greater percentage of undernourished children in the first two or three grades of the schools this year than they have ever encountered before. According to the *Science Service* article, the European situation is not confined to children alone. The Health Committee of the League of Nations is making strenuous efforts to reach other standards beyond the eat-to-live level. These facts were discussed at the meeting of the American Dietetic Association in Boston. They further stated at this association meeting that in no country of Western Europe does the whole population come up to the desired standard of nutrition.

Just why there should be an increase in the number of children suffering from lack of proper food in North Carolina in the first two or three grades of the schools at present it is impossible to say. In the opinion of

some of our health workers, particularly among nurses who have been engaged in school work in the same territory at frequent intervals for the last eighteen or twenty years, they feel that it is probably a result of the lack of food and the impairment of proper living habits and proper habits of eating during the recent depression years. Some of them feel that the effect is just now being felt to the fullest extent and is seen in the children who went through this period during the years from one to six. Whatever the cause, it is a problem for everyone to think about. It means for one thing that within a few years, there will be a recrudescence in tuberculosis, that is, an increase in tuberculosis cases, particularly in adolescents. It means also that there will be an increase in suffering and deaths from numerous nutritional disorders. Systematic efforts cannot be inaugurated too early to combat this condition. In this connection it is essential that we bear in mind that there are many poor people yet living in North Carolina. A better distribution of work opportunities and food should be somehow brought about.

* * *

IN the discussion in the foregoing paragraphs of nutritional problems, we are reminded of another story going the rounds in the newspapers some time ago. We refer to the news dispatches which described some of the routine followed by two great football teams, one in Louisiana and one in the State of Washington. It is stated that these two champion teams are using corn sugar, technically known as dextrose, during the present season as a quick restorative for tired muscles and the quickest and most effective way to overcome fatigue. It is only fair to state that the story originated at the headquarters of the Corn Industrial Research Foundation.

We call attention to this story here because we have insisted for many

years that the live at home program and utilization of the products we have from the soil in this State is adequate the year around for balanced health. It brings to mind again that in the days of slavery and for a long time following, in the State of North Carolina, on the plantations and in the turpentine woods, the principal food of the workers in the woods and fields was cornbread and meat, supplemented in season by various game and fish, which the workers could manage to get hold of themselves, and of course vegetables from the plantation garden. The staff of life, however, was the cornbread, raised in the locality and ground at a water-turned mill in the neighborhood. The late Dr. Edward J. Wood claimed that there was no authentic cases of pellagra in the State of North Carolina until after the company stores of the lumber companies and other "time" mercantile establishments began the importation of the degermized corn meal from the corn belt in the middle west. Just as soon as that custom became established throughout the State, the neighborhood water ground mills went into decay, or most of them. Along with this imported corn meal which was supplied tenants by time store managers and to the workers in the lumber camps by the company stores, along with the fat-back from the west, resulted in the diet which the United States Public Health Service through the famous Dr. Goldberger later laid down as the primary cause of the deficiency disease known as pellagra, in North Carolina. In our opinion, Dr. Wood was right in his conclusions and the facts all seem to justify his statement.

Today the mothers can utilize fresh tomato juice in order to secure the proper vitamins for her baby with the same satisfactory results that she can get by using oranges from the tropics and the corn products of this State, if properly utilized as food, along with

the fresh vegetable and native meats and poultry, fresh water fish and seafood will more than compensate for the loss of the wild game available to our early ancestors in this country.

In conclusion, our old Bladen County slogan, when we were fighting against

pellagra in 1915 and 1916, in that county, and all over the State, for that matter, of a cow, garden, and flock of poultry for every home is still applicable, for people living in the country and their products for the people in the towns.

The Public's Responsibility In the Community Health Program

By ROY NORTON, M.D., Acting Director Division of County Health Work

MUCH has been said and written about the responsibilities of various groups in the promotion of public health. What should be done by the private medical practitioners, by hospitals, by nurses and by State and local health departments has been considered at length. Long and heated discussions have been held as to whether curative medical practice should continue individualized or become socialized. Various schemes have been devised to dispense medical care to various groups in many communities.

The central thought which I wish to emphasize is that the attainment of health by an individual or a community is a project in which that individual or community must actively participate. The promotion of health is not a spoon-feeding process. Preachers have learned that an effective sermon requires a receptive and cooperative audience. Any farmer knows that good seed may be rendered unproductive by poor soil and weather conditions. For a community to attain, maintain and grow in health a large percentage of the citizens must appreciate and actively participate in the public health program. Whether instinctive or conscious and whether singly or as a community the process of acquiring health, like "getting religion," is an active, progressive, cooperative step and never

a passive acceptance. The public must be served but the public itself must also become ready to serve in its own behalf.

Greater progress has been made in curative medicine in the last fifty years than in all the previous centuries. From the time that Moses handed down his sanitary regulations to the ancient Hebrews until a quarter century ago, less progress was made in preventive medicine than in the period since then. And there has always been a considerable lag between the acquisition and the application of scientific knowledge. Private physicians and public health officers have promoted the utilization of medical learning for the benefit of the public health. Only recently, however, has the part the public must play in working out its own physical salvation been fully appreciated. Prescriptions were written in Latin and the patient was discouraged from asking questions but told to follow directions. Superstitions, taboos, and a semblance of magic and mystery tended to persist. Too much criticism should not be directed against the medical profession, however, for only recently have we seemed to realize that even the fire department and the police department must do preventive work for greatest effectiveness, and that prevention requires intelligent and sympathetic pub-

lic cooperation. The promotion of safety or law observance like the teaching of individual, family and community hygiene involves active cooperation of the great majority of people in a community. The public must develop a health-consciousness.

What are some of the ways in which the public must cooperate in the community health program? Only a few examples can be considered. Considerable tax money is spent in inspection of cafes, dairies and markets and sanitary regulations are enforced for the protection of the public health. These foodhandling establishments are graded and their employed personnel are given medical examinations. Do you eat at grade A cafes, restaurants and hotels? Do you buy grade A milk, preferably pasteurized as an added protection? Do you buy meats from the markets showing the highest grades from the standpoint of proper equipment and cleanliness? To provide you with the best may, and does, require a great outlay of money by the grade A producers of our foodstuffs. Do you express appreciation in patronage or do you show miserly shortsightedness and endanger the health of yourself or your family by patronizing the dealer who through shortcut, bootleg, insanitary methods is able to sell for a penny or two less? Any except the best and cleanest milk or other foodstuff may be costly in sickness, disability or funeral bills even if given away. I have known city-dwellers who demanded the best in motor oil and paid the highest prices and yet drove out and bought for their children milk that had been banned from delivery into the city. Knowing the insanitary conditions in those so-called dairies I wouldn't have allowed my children to drink the milk if it had been free. Go out and inspect the dairy you patronize. Look for the grade A Health Department Card when you go to a cafe or restaurant. Do you refuse to eat in the lower grade cafes?

Definite protection may be secured from certain diseases by artificial immunization. Get advice from your physician about when and how you can secure increased resistance to typhoid fever, smallpox and diphtheria. In certain instances protection against measles, whooping cough, scarlet fever, rabies and tetanus may be obtained. The amateur gardener gets advice on when, where, and what to plant. Isn't your health, or that of your child, just as worthy of intelligent planning?

Only by public cooperation can communicable and contagious diseases be controlled. Report suspected cases to your physician or local health department and remember that a quarantine sign is intended as a protection to the infected individual, to the family and to the community.

Go to your physician for examination, advice, and treatment at the earliest indication of trouble. Only in this way can we make much headway in controlling cancer, tuberculosis and many other diseases. Avoid quacks and cultists and don't embarrass your druggist by insisting that he prescribe over the counter. The promiscuous use of patent medicines is one of the most dangerous and costly procedures possible. This is particularly true of laxatives and cathartics, which are eventually always constipating in their effect. Proper diet, the avoidance of fads, moderate exercise with plenty of fresh air and sunshine do more good and prevent all the dangers inherent in too much dosing with patent medicines or other unnecessary drugs.

Parents can cooperate by getting their children's remediable defects, such as those of teeth, tonsils, or eyes corrected at the earliest possible time. Landlords are promoting the community health when they keep their rented houses in good repair with proper screening, pure water and safe disposal of human wastes.

Every man, woman and child can become better informed on health matters relating to the individual, family, school and community. Free literature on subjects of current interest may be secured from your physician or from your local or State Health Department. By this knowledge one can avoid tradi-

tional misconceptions about disease and better evaluate the siren calls of faddists, cultists and commercial advertisers. One will then also be better able to join in that necessary cooperative public response to public health leadership and bring about the promotion of community health.

“Rats and Our Health”*

By GEORGE B. LAY, *Junior Biologist, U. S. Biological Survey,
With Headquarters at N. C. State College for Rodent Control in North Carolina,
South Carolina, Virginia, Georgia and Florida*

IN two previous articles, about rats and their threat to the health of man, I have gone into the discussion of the diseases carried and the necessity of man's making continual war against this, the most destructive animal in the world. In this article, I will try to point out means of artificial control and add to the information already given on permanent control.

In the first article, I stated that rat proofing, sanitation, removal of trash, disposal of garbage and other artificial means would permanently cut down the shelter and food needed by rats, within a given community. Where public opinion is behind strict sanitary ordinances in a town or city, better observance of such regulations will automatically be obtained, with a lowering in the rat population, and also better health for the community. The building-out of rats from buildings costs money but such an investment is a long-term one and pays in dollars and cents in materials saved from destruction and pollution. The Federal Government publishes a bulletin which gives facts, methods, data, diagrams on rat-proofing. It is entitled: “Rat Proofing

Buildings and Premises;” and is Farmers' Bulletin No. 1638, of the U. S. Department of Agriculture. This bulletin may be obtained from the Superintendent of Documents at Washington or from my office in Raleigh.

The Government strongly urges the permanent program of rat-proofing, improving sanitary regulations, installing of incinerators, etc., rather than baiting, gasing, shooting, etc. But, where rats are plentiful and most buildings are not rat proof and cannot be so made in short order, the use of baits and other artificial means of control is necessary and urged.

Among the poisons used—and there are many—the Federal Government recommends baits with Red Squill (flue- or oven-cured only) as the killing agent. Red Squill is not expensive, will keep in a tight can for a long time and does not kill animals other than rodents, ordinarily. Red Squill comes from a bulb and is an emetic. Rats and other rodents cannot vomit and, hence when such animals eat bait with sufficient Red Squill mixed with foods, they die. Other animals (mammals) will vomit the bait up and recover quickly. Fowls are not affected

* EDITOR'S NOTE: This is the third and final article by Mr. Lay on the subject of “Rats and Our Health” prepared especially for THE HEALTH BULLETIN. We would suggest that our readers preserve this copy of the BULLETIN for the excellent instructions on rodent control.

by strong concentrations of Red Squill in feeds. In other words, Red Squill is safe. Further, Red Squill acts slowly (in 4 hours to 5 days) and for that reason has two very important assets: rats usually leave the premises to die, thereby removing the chances of odors in or about a home; and the animals do not get sick before other comers to the bait at a later hour of night have eaten their fill.

When a rat begins to feel the effects of Red Squill, he goes "home", and wharf rats live under floorings, under trash, in runways in the ground; but practically never in houses. In Raleigh's rat campaign in May, 1935, there was one report of odors; and in that case the rats had died under a coal pile in a basement—in other words, they had gone "home." There are several disinfectants on the market to kill such odors, quickly.

In using baits, care should be observed in mixing foods with Red Squill. Several foods may be used as bases: oatmeal, hamburger meat, canned mackerel, etc. In all instances, mix 1 part of Red Squill to 16 of the food. Often, it is best to put out some of two or more kinds of bait—thus giving the rats a choice and increasing your chances of killing most of your rats. Farmers' Bulletin No. 1533, entitled "Rat Control," is a general bulletin on the subject of killing rats, etc.; while Leaflet No. 65, entitled "Red Squill Powder in Rat Control," is the story of squill in rat control. Both of these publications may be obtained from the Superintendent of Documents or from my office.

Care should be observed in putting out baits. They should be placed in runways, in basements, in holes, where rats are known to run about and feed. Baits should not be placed where dogs, cats, chickens or human beings can get to them easily. If such baits are eaten by animals or fowls, other than rats and mice, you have wasted that much

material; and baits cost money. Never place baits above the ground floor of an occupied building; and do not use Red Squill baits in your home for mouse control, for cheap snap traps are surer and will handle the problem, if kept baited and set.

Baiting is preferred by the Federal Government to other artificial means of control such as gasing with poisonous gases, shooting, etc. However, in certain types of buildings, when not occupied by man, gasing with one of several different gases will completely rid your premises of rats, for the time being. Many persons, especially men and boys, get fun out of shooting the animals. Both gases and the use of guns is a dangerous practice. Baiting with Red Squill, if correctly carried out, is safer and just as effective.

Trapping is very often useful, especially as a follow-up of baiting. Some rats seem endowed with almost human intelligence—especially the older animals. After baiting, a follow-up with a few traps will often result in the capture of these super-intelligent rats. Of course, trapping, when the traps are put in the proper places, is fairly safe.

Baits, poisons, gases, guns, traps, etc., are not sold by the Federal Government. Such materials are to be obtained from commercial companies and firms in your home town. As there are over one thousand different kinds of baits on the market—many of them good and many of them of little or no value—the Government urges that the public do not buy a Red Squill so-called bait or powder unless it is flue- or oven-cured. Sun-dried squill, often, is of little or no value. There are other baits and poisons, using arsenic, strychnine, barium carbonate and so forth, as killing agents; but these are dangerous and there is a greater risk in making use of them. The Government bulletins listed give pertinent facts relative to this situation.

If your premises are not over-run with large numbers of rats, traps may give you nearly perfect control. In such an instance, you do not have a continual outlay of money; bait would cost you money and would have to be put out periodically, not more often than once a month. In the long run, rat-proofing will pay you as an investment, for, once made, such repairs and improvements on your buildings, will serve to keep out rats for years and will eliminate the bait bill.

Your county agent, vocational agricultural teacher, city or county health officer, secretary of your Merchants Association or Chamber of Commerce, will be able to help you and give you advice. If you cannot get the information you wish in your local community, write the author. Your communication will be handled as soon as possible. However, as I am in the field much of the time, and as I have the supervisory

and advisory work of all rodent control problems in five Southern states, there may be some delay. For materials, see your druggist, hardware merchant or other regular commercial dealer. Wholesale druggists stock good squill baits and powders, in case your local druggist does not have the needed materials on hand.

Progress in rat control is being obtained. Here, in Raleigh, since March 1, 1935, at least 40 structures (both in the business section and in the residential areas) have been rat proofed. That is permanent progress. I would like to see every town and city in my district adopt regulations fostering rat proof structures; and I would like to see every rural family living in homes and on premises that were as nearly as possible rat proof. I do not expect the millenium but I do hope and look for slow but continued progress in this battle by man against the rat.

The Teacher and A Health Certificate

OUR neighbor, *The Sanatorium Sun*, in its November issue has an excellent article under the title of "Tuberculosis, the Teacher and the Pupil."

A careful perusal of the *Sun* article, presumably written by the editor, Mr. J. M. Gibson, reminds us that we have had in mind a discussion of this subject for some time. The particular phase we have meant to emphasize is the present law on the subject in North Carolina. Mr. Gibson brings out one point that has been literally a phobia with the Editor of the HEALTH BULLETIN for a quarter of a century, and that is the necessity for teaching health to the teachers in the teacher training schools *before* they go out to become teachers. Says the *Sun*:

"The Bulletin of the National Tuberculosis Association published some

time ago an article pointing out that more than eighteen thousand tuberculous teachers were in active service in the schools of America at the time the article was prepared. Some of these undoubtedly will have serious breakdowns eventually. Others may have sufficient physical resistance to keep on working without developing the disease in a fatal form. Still others may never know they have, or have had, tuberculosis. All, however, are a distinct menace to the millions of school children with whom they are in close physical association and, through their pupils, a menace to the pupils' parents and the general public.

"The Extension Department of the North Carolina Sanatorium has taken effective steps to correct this situation insofar as it affects this State. It has conducted clinics at the University of

North Carolina, at Dr. McIver's Woman's College in Greensboro, in several of the Negro colleges here and there, and in the other institutions where teachers-in-the-making are getting the knowledge which it will be their task in the years to come to pass on to their pupils. The clinics that have been conducted in elementary and high schools in all parts of North Carolina during the past several years have by no means confined themselves to the students. Members of the faculties have been encouraged to avail themselves of the knowledge of their physical condition which these clinics have made available, and many have done so. A number of teachers have discovered their true condition in this way and have thus been able to begin at the earliest possible moment their own fight for recovery. Equally important, they have been removed from the schoolrooms and eliminated as spreaders of the deadly tubercle bacilli."

The *Sun* then goes on to say that there are possibly 500 teachers now engaged in teaching in North Carolina who have tuberculosis in an active form. The *Sun* editor then quotes the National Tuberculosis Association expert as saying that "The logical solution will come when all states have laws requiring teachers to present evidence that they are free of tuberculosis, such evidence to be based upon physical examination supplemented in all cases by X-ray of the chest."

That statement leads to our intended but delayed comment. North Carolina has a law requiring a health certificate from every teacher, declaring freedom from tuberculosis or any other communicable disease, to be signed by a reputable physician, and to be filed with the employing school official before being allowed to teach. The certificate must be renewed annually. This law was enacted by the Legislature of 1919. It was written by the Editor of the HEALTH BULLETIN at the request

of the Legislator who put it through without any amendment.

The law very properly leaves the decision squarely up to the examining physician. This feature should be continued; but for his own protection as well as that of the pupils and the teacher it would be best for the physician to require, as the N. T. A. expert suggests, a supplemental X-ray examination, at least in every case in which he could possibly be in doubt. And that is what we have been wanting to suggest for two or three years. So far as is known, the teachers and school authorities all over the State have been complying with this law fully. The State Board of Health and the State Department of Public Instruction both supply several thousand blanks every year for the physician to use in a brief statement following his examination. This certificate is then filed with the employing school official. The physicians have always been urged to take this required examination seriously and to make a careful and rigid examination. Perhaps it would be best to require that the examination be made, and the certificate issued, by one of the clinicians connected with the Extension Service of the State Sanatorium. That is a matter, however, for Drs. McCain, Reynolds, Erwin, and the officials of the State Medical Society to settle.

TO PREVENT INFANTILE PARALYSIS

Experiments on animals have apparently proven that infection by the virus or germ of infantile paralysis may be prevented by use of a nasal spray three or four times a day on alternate days during an epidemic.

A good spray solution for the purpose is said by the National Institute of Health at Washington, D. C., to be one half per cent each of picric acid and sodium alum in physiologic salt solution (.85 per cent).—*Good Health*.

Notes On Maternal Mortality

IN the United States, as throughout the civilized world today, maternal mortality is a matter of serious concern. Twelve thousand, eight hundred and fifty-nine women died during 1934 in the United States of diseases of pregnancy and childbirth. More women in the reproductive period of life (ages 15 to 44) died from diseases of pregnancy and childbirth than from any other cause except tuberculosis. Sixteen per cent of the women who died at the peak of the childbearing period (ages 20 to 29) were reported to have died from puerperal causes.

The most frequent cause of these maternal deaths is puerperal septicemia, which was responsible for 40 per cent of the maternal deaths in 1934. Next in importance were the toxemias of pregnancy, which accounted for 23 per cent of the maternal deaths. These two types of causes were responsible for 63 per cent of our maternal deaths in 1934.

There is wide variation in the maternal mortality rates of the several states. In 1934, ten states had rates of 65 deaths or more per 10,000 live births; 21 had rates from 55 to 64; and 18 had rates less than 55. The lowest rates were for the District of Columbia (38), Vermont, (39), California and Wisconsin (43).

In this country there has been little reduction in either the total maternal mortality rate or the rate from puerperal sepsis during the period for which statistics are available. In 1915, when the birth-registration area was established, the maternal mortality rate was 61 deaths per 10,000 live births. In 1934 it stood at 59 per 10,000. For both years the rate from sepsis was 24 per 10,000 live births.

The rates for 1915 and 1934 are, of course, not entirely comparable, as the

birth-registration area expanded from 10 states and the District of Columbia in 1915 to include the entire continental United States in 1934. The rates for the group of states included in the birth-registration area every year from 1921 to 1934 show a reduction of 12 points during that period. In other words, for every 10,000 mothers whose infants were born alive, 67 mothers died in 1921 in these states, as compared with 55 in 1934—a saving of 12 mothers. The rates from puerperal sepsis dropped from 27 to 22—a reduction of only 5 points.

The United States today has a high maternal mortality rate as compared with the foreign countries that have comparable registration procedure. Among the countries with rates much lower than the United States in which the variations in procedure do not account for the wide variations in rate, are Norway, Italy, and the Netherlands, with rates of 28, 29, and 32, respectively, in 1933.

A comparison of maternal mortality rates for white and for Negro women shows how much less chance the Negro woman has than the white woman for survival of pregnancy and childbirth. The mortality rate for Negro women for 1934 was 93, as compared with 54 for white women.—*The Child*, U. S. Children's Bureau.

In 1934 North Carolina lost 605 mothers from causes incident to child birth. This gave the State a high maternal death rate of 7.6 deaths per 1,000 live births. By reducing this rate to 7.0 in 1935 the State was able to save 51 mothers. Had the rate been as low as the national average of 5.9, it would have saved the lives of 83 more mothers.

Why Mothers and Babies Die Needlessly In North Carolina

By MRS. J. HENRY HIGHSMITH, Assistant Director, Health Education,
State Board of Health

THE message I am bringing to you this month is by request. It is the story of why so many mothers and babies die needlessly in North Carolina, and what is being done by the State Board of Health and the Children's Bureau in Washington to remedy this situation.

A few years ago North Carolina prided itself on being called the "Baby State," not because it was the youngest, or the smallest, or gave promise of rapid growth and development, but because it produced the most babies per 100,000 of its population of any State in the Union. But North Carolina no longer takes pride in this appellation for the reason that it has lost this distinction to New Mexico, and the further significant fact that it has not been able to raise the babies that were born to its mothers. Now, the trend is upward again and we may be able to recapture our boastful "first." However, it is no distinction to have babies and not be able to raise them. It is a disgrace. North Carolina loses a shamefully large number of babies every year. In 1934 we lost 6,169 under one year of age, which was more than any other state per population except South Carolina, Georgia, New Mexico, and Arizona. While times are better and our death rate is beginning to decline we are still losing between three and five hundred babies each month or about 5,000 a year, and between 40 and 50 mothers a month, or about 500 a year. Physicians say that between 75 and 85 per cent of these deaths are needless. In other words, they could have been prevented, since many of them were due mainly to neglect.

To determine the causes of the State's high death rate of mothers and

babies in recent years has entailed much study and many investigations. Among those making studies of the situation were a group of Duke University students under the direction of Dr. W. C. Davison, members of the State Medical Society, and the Division of Preventive Medicine of the State Board of Health. Interesting were the causes found by each investigation, and strikingly similar. These were found for the most part to be the State's high birth rate, ignorance and indifference, poverty, isolation, and the use of midwives.

Naturally, it is to be expected that more deaths would follow a high birth rate than a lower one, especially if these babies were born to parents of small means, low incomes, amid crowded and poor living conditions and under circumstances which denied them even the minimum care that babies must have to survive.

But ignorance and indifference were found to be large contributing factors, especially that hopeless ignorance that refuses to know better and still holds to old notions and customs of a generation ago; that kind of ignorance that fosters superstitions, old-fogy notions, insanitary practices, and all the backward customs of thinking and living. It is a regrettable fact that superstitions and old wives' tales are responsible for the neglect, and perhaps the death, of many babies in this State today. Even some husbands and fathers are hiding behind these old-fogy notions, making them their excuse for not providing adequate care for their wives, when in that delicate period preceding the birth of their babies. They will tell you that birth is a natural process and needs no interference,

not even from a doctor or a nurse, and that the services of a midwife, regardless of how unskilled, insanitary, and ignorant she may be, are all that are needed for the coming of the baby. Is it any wonder that mothers and babies die under such conditions as are found in nearly every section of this State?

Poverty, too, was found to be a contributing factor to the State's high death rate of babies and mothers. That false economy that is brought on by poverty and was increased by the recent depression, made having the services of a physician to attend the pregnant mother and care for her baby at birth considered unnecessary, and in too many cases it was dispensed with altogether. Thus the habit of doing without a physician's services was more fully established. False economy of failing to have a physician has been responsible for not only a mother doing without proper food and proper care before the arrival of her baby, but also for paying for this neglect in prolonged illness and perhaps, invalidism, if not with her life.

Isolation, too, was found to be a cause, especially isolation that made accessibility to a doctor difficult and long delayed. Families back on the farm, down on the coast, and up in the hills—those far removed from centers of educational, religious, and social life—were found to have suffered greatly for the lack of general information and free health service that is to be had today. To reach these mothers never before served by the free agencies of the State is our privilege and task.

Another determining factor of great importance is the general use of midwives. It is estimated that one-eighth of the white mothers, and two-thirds of the colored have only the services of midwives at the birth of their babies. Some day, it may be the millenium, I predict that we will look back on this period when ignorant, unskilled in-

sanitary midwives deliver one-third of the babies of the State, as a relic of the dark ages. As our civilization is constructed at present, perhaps there is a place and service for the midwife, but the ideal of our public health workers and all interested in the well-being of the race look forward to the time when every mother will have adequate care during the period of pregnancy and at the birth of her baby.

Thus we see our problem, and it is my privilege and pleasure to tell you something of the program that has been set up for the remedy of this situation in our State. Last August there was passed by Congress what has been called one of the greatest human documents ever enacted by a law-making body—"The Social Security Act," a phase of which was to make more secure the lives and health of mothers and babies throughout our great country.

To the Children's Bureau was given the responsibility of administering the section of the Social Security Act, providing Federal aid for maternal child health services, and to the North Carolina State Board of Health, under the direction of Dr. G. M. Cooper, has been given the responsibility of putting into operation this special health project in the State. By matching funds with the Federal Government the State Board of Health has been able to secure certain health services for mothers and children, particularly for those in rural or neglected areas, or in places of economic distress. The program set up by Dr. Cooper and his co-workers includes the organization of health centers in conveniently located places, and these to be served by local physicians, pediatricians, obstetricians, dentists, and one or more public health nurses. So far, these have been placed mostly in sections of the State where the maternal and baby death rates are among the highest. To these centers are invited needy and indigent mothers of

the community who have been sought out by the public health nurses and urged to attend. At the centers, which are held regularly each month, they are given a physical examination and are advised as to what constitutes proper care for themselves and their babies, both before and after birth. Valuable literature is put into their hands, with the instruction as to its best use and helpful meaning.

The centers or clinics are under the supervision of local doctors, which means that mothers attending these centers are brought face to face with their county or community physicians probably for the first times in their lives. Here they are enabled, also probably for the first time, to know and appreciate the services of a doctor. Furthermore, barriers of embarrassment due to false modesty and inexperience are broken down and the way is made easier for them to confer with a physician and have him administer to their personal needs. While a general physical examination is given, there are no provisions for treatment. Patients needing treatment are advised to go to their local or family doctor, and emergencies are handled through the county public welfare officer, or some other local agency.

Another phase of the center work is the instruction given to mothers regarding the feeding and care of their babies. They are advised to bring their babies regularly each month to the center and the child's growth and development is carefully watched. While at the center, the babies are often given the immunizing treatment against diphtheria and smallpox. Dental needs of the mother and baby are also taken note of, as well as other phases of their general health. Thus the health center in any community becomes both a health and educational institution.

To date, nearly 100 health centers have been established in North Carolina in about 30 counties. Sixteen of

these counties are without any organized health department or public health nursing service, while the others have this maternity and infancy work as a supplement to their regular health program. Already hundreds of mothers have been served at these clinics or centers and the darkest spot in the State's public health work is beginning to clear up.

But the baby problem in North Carolina will not be met and settled by this one program alone. It is too large and too involved to be met and handled so easily. However, every little bit is a decided help. Underlying it are all the social, economic, moral and health problems that affect a people. Dr. Cooper, who is familiar with the conditions that are largely responsible for the State's high death rate of mothers and babies, has repeatedly stated these to be: Lack of pre-natal and competent obstetrical service at child-birth; lack of knowledge on the part of mothers concerning themselves before their baby's birth, and concerning the care and needs of the baby after birth; lack of home comforts, and home and community sanitation, and lack of foresight or provision on the part of the husband or father for the arrival of another member of the family.

All of which is to say that poverty, ignorance, and indifference are playing too big a part in the background of the State's future citizens. And all of which shows that the science of eugenics must be made general and practical, and the problem of improving the race be made the concern of the State.

Primarily it is an educational problem in which all agencies must help. Local groups like the woman's club, the parent-teacher association, home demonstration clubs, the schools, and the church can cooperate with the health forces to educate the mothers of the community to realize the risks they run when they fail to have the care of a physician.

The Initial Of A Friend

What "Grade A" Means to You When You Eat Out

DID you ever think what that familiar little "GRADE A" placard means to you at your favorite hotel or cafe? It means a lot! It means a large measure of protection to your life and health and a large measure of assurance of cleanliness and sanitation of everything connected with food and food handling in the hotel or cafe that displays such a placard.

A placard showing "Grade A" posted on the wall of a North Carolina hotel or cafe indicates that the sanitary rating of that hotel or cafe was found by a sanitarian to be over 90% according to a rigid standard of sanitation. And what does that rigid standard of sanitation include? It includes, of

course, the cleanliness and sanitation of the kitchen and dining room—that much is understood. But in addition to that, it also includes such details as the cleanliness of the wash room, its soap, towels, ventilation and lighting, as well as the state of repair of the toilet fixtures.

But "Grade A" means much more than this. It means that a safe water supply is used; it means the sewerage facilities are safe and adequate; it means that a Grade A milk supply is used. Those three items are of vital importance. But "Grade A" does not stop there. It means that the servants and those handling food have been examined by a doctor and certified to be free from syphilis, tuberculosis, and not a typhoid carrier.

In fact, "Grade A" means that everything is checked periodically by a competent sanitarian from the refrig-

erator to the screening of doors and windows, from clean clothing and table linen to covered garbage cans. A "Grade A" placard in your hotel or cafe means free life insurance and health insurance for you and yours.

As might be expected, more and more people are patronizing hotels and cafes that are able to display "Grade A" placards, and that is as it should be. Of course, there may still be a few Grade B boarders, and for them there

are a few "Grade B" hotels and cafes—those grading from 80% to 90% on sanitation. Finally, there are a few "Grade C" hotels and cafes or those that merit a rating of only 70% to 80% on sanitation.

Fortunately, public discrimination, plus this method of scoring is

producing keen competition among the hotels, cafes, and their operators. The Grade A places are anxious to maintain their place, and the Grade B and C places are anxious to improve their rating. And you gentle readers can do more than almost anyone else to secure good, clean eating places by looking for the "Initial of a Friend"—the "Grade A" placard—when you dine out. It is your life insurance, your surety of purity. Demand it of the cafe that receives your patronage, or go where a "Grade A" placard is displayed.

Beware of restaurants and public eating places that have no reputation to lose—restaurants with tinselled fronts, cheap music or mediocre entertainers. You may get quick service here and fill your stomach at little cost, but be assured it will be expensive in the long run.

